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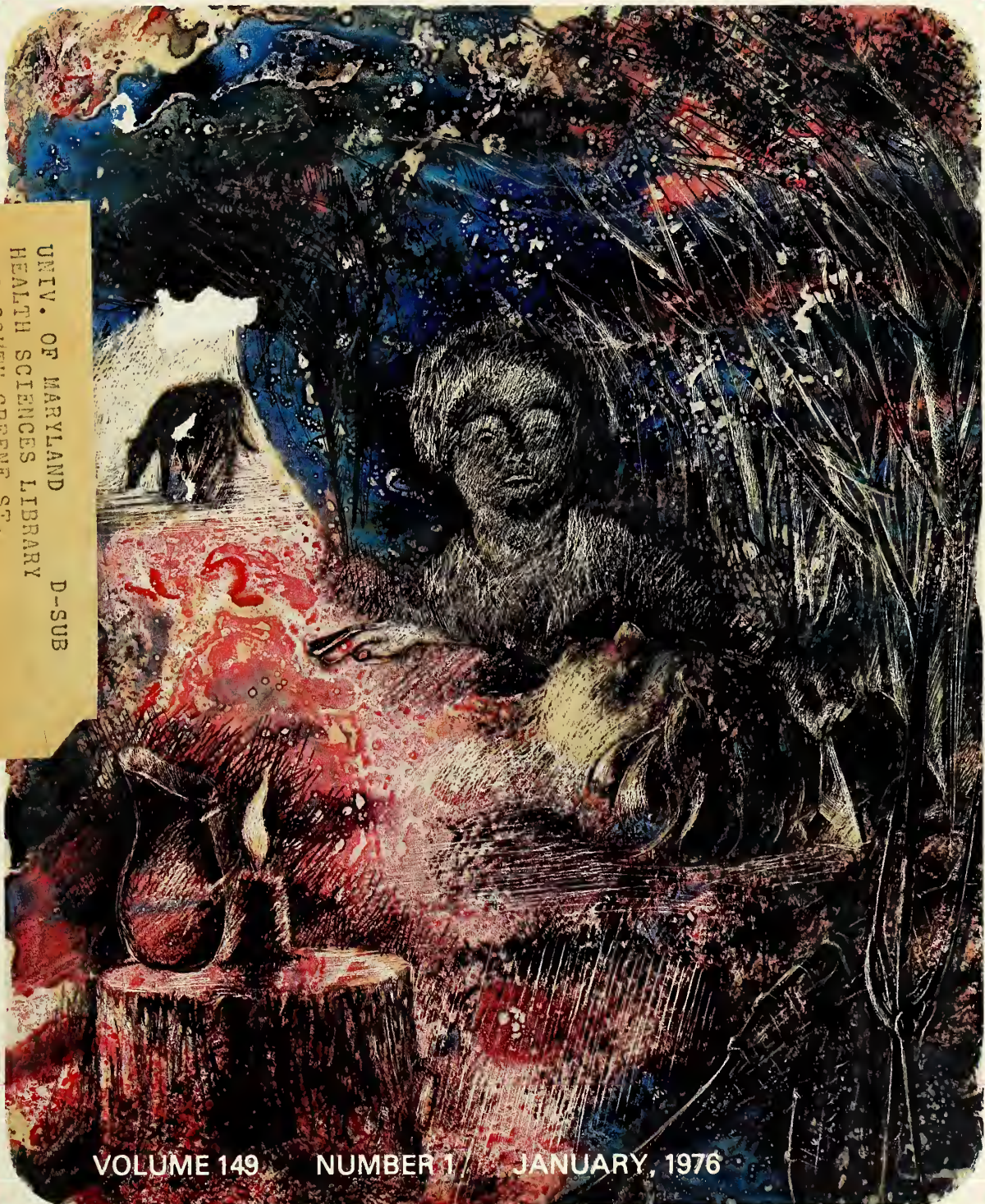
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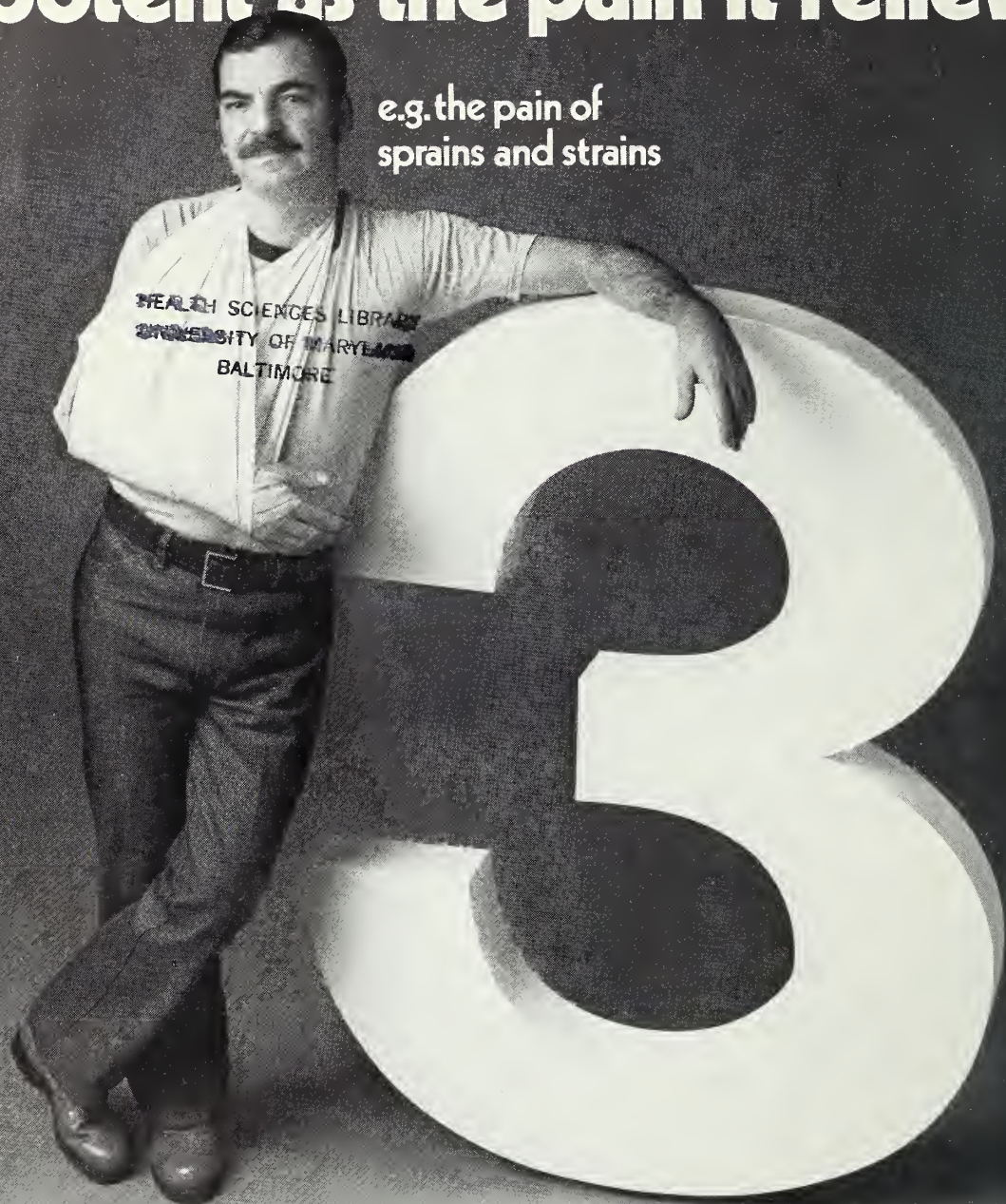
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VOLUME 149 NUMBER 1 JANUARY, 1976

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BLUE SHIELD REPORT



FOR *Illinois Physicians*

Physician Telephone and Mail Hot Lines in Operation

As part of our continuing effort to improve service, Blue Shield has established telephone and mail hot-lines for use only by physicians, their medical assistants or billing agencies.

TELEPHONE HOT-LINE:

Our personnel are trained to respond to all Blue Shield questions including those relating to payment of specific claims. The numbers to call are:

Chicago Area . . . 661-8088

Toll Free Number . . . 800-972-8088

Since these lines were installed to provide a service to you, *please do not give this number to your patients.*

The number to call in Cook County for Part B Medicare claims is 661-4252.

MAIL HOT-LINE:

This special service is being offered for your convenience to handle only inquiries from physicians. A special 4-part form has been designed to be used for Blue Shield inquiries including questions relating to specific claims. These forms, with instructions for completing the forms, were recently mailed to all physicians in Illinois. If you have any questions regarding these forms, call the telephone hot-line number.

Medicare inquiries should continue to be sent to:

**Blue Cross-Blue Shield
Government Contracts Division
233 North Michigan Ave.
Chicago, Illinois 60601**

Services to Reciprocity-Eligible Patients

Reciprocity is a program to ease claims handling for physicians' services to Blue Shield patients who become ill or are injured away from home. The system guarantees payment by the local Blue Shield Plan to physicians on a Usual and Customary fee basis. It helps eliminate complications and confusion about membership eligibility and speeds reimbursement.

On occasion we are asked by the Home Plan of a national account to request your cooperation in providing benefits to eligible employees who are enrolled in the Reciprocity program. A recent request involved the Home Plan for the Hoover Company in Cincinnati, Ohio. Members enrolled in this Plan are issued Reciprocity Program identification cards with the Home Plan number "N-331". The number is in the double-pointed red arrow in the upper left corner of the card. Further identification includes member's name, corporate name of the account, member's group and certificate number.

After services are provided, please complete *our*

Blue Shield Physician's Service Report form in the usual way, and enter the Home Plan number "N-331", plus the member's group and certificate number. Forward the claim to Blue Cross-Blue Shield, 233 North Michigan Avenue, Chicago, Illinois 60601. The patient receives treatment; the physician receives his fee directly from Blue Cross-Blue Shield; we make payment first and do the paperwork later on membership eligibility.

When Submitting a Blue Shield Physician's Service Report . . .

PLEASE DO NOT:

- (1) Use another physician's imprinted service report form for services *you personally provided*.
- (2) Paste-over or in any way alter information in the coded imprinted area of the form.
- (3) Use outdated service reports or photocopies of original reports. Our entire claims processing system is geared to the Physician's Service Report revised in July, 1973. Blue Shield will supply you with imprinted forms upon request. Please destroy outdated forms.

ASK BLUE SHIELD

. . . ABOUT MEDICARE

Addition of Letter "H" On Medicare Remittance Notices

When the letter "H" appears on a Medicare Remittance Notice form under "Remarks Code," Column B, it refers to the Waiver of Liability clause of the Medicare law that reads as follows:

"If you did not know that Medicare does not pay for this medical service for this condition, you may request a review of the decision."

No explanation is made on the reverse side of the Remittance Notice forms currently in use. The statement will appear on new forms being prepared by Medicare.

Waiver of Liability is discussed in detail in the *Medicare Physicians Handbook*, Chapter III; and in a summary of the provision published in August, 1975 issue of *Ask Blue Shield About Medicare*, *Illinois Medical Journal*.

A Medicare beneficiary or physician may appeal a denial or partial denial of payment in *assigned claims* under the waiver rule when services are determined to be not medically necessary by the Part B carrier in its initial finding.

Payment action may be taken by the Part B Medicare carrier as follows:

(1) When the patient knew services were not covered, Medicare will pay neither the patient nor physician. The physician, however, may seek reimbursement directly from the patient;

(2) If neither patient nor physician knew of non-coverage, Medicare will reimburse the physician for the services if he has not been paid. If the patient paid the physician, Medicare will reimburse the patient, less any portion of the patient's unpaid Part B deductible and coinsurance;

(3) When the patient did not know of non-coverage, but evidence may exist that the physician did, Medicare will not reimburse the patient or the physician. If the physician collected payment, he should make refund. If he does not, the Part B carrier will reimburse the patient and collect the amount from the physician either directly or by offsetting the amount against future claims payments.

Generally, the carrier's determination on whether the physician knew or could be expected to know services are non-covered will be based on whether the physician has previously been informed that certain of his services are of the type not covered because they are not medically necessary.

Where Laboratory Tests Are Performed Must Show On Claim Form Or Statement

The Bureau of Health Insurance, Social Security Administration, has again requested the cooperation of physicians to indicate the actual place laboratory services were performed, on either the 1490 Request for Medicare Payment form or the physician's billing statement.

If the tests were provided by an independent laboratory, the name of the laboratory must be shown on the claim. When tests were performed in the physician's office a statement should be made to that effect, such as "tests done in this office," or "own office" and indicated in Item 7B of the 1490 form or on the billing statement.

Claims for laboratory services that were formerly accepted without an indication of where they were performed will no longer be routinely processed by the Part B Medicare carrier.

Signature Requirements On Submitted Claims

All non-assigned claims for Part B Medicare services must have the patient's signature if the bill for the charges has not been paid in full. If no payment balance remains, a signature is not required by the Part B Medicare carrier. However, a beneficiary's signature on the claim form is preferred, since it does attest that the billed services were furnished by the physician or other provider as stated.

Assigned claims must have the patient's signature unless: (1) The patient is a recipient of Public Aid, in which case his Public Aid number should be entered in Item 5 of the 1490 Request for Medicare Payment form (2) the patient is deceased, wherein a statement should be made "patient deceased" (3) the patient is unable to sign. Medicare then requires the signature of a witness, such as a relative or close friend. In assigned claims, a statement to the effect that an assignment of benefits was agreed upon between physician and patient is also a Medicare requirement.

General statements, such as "signature on file" on claims are not accepted by the Part B Medicare carrier as authorization for payment of benefits. These requirements for signatures are intended for the protection of the physician and beneficiary.



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On the cover

Currently the United States is commemorating its Bicentennial. As part of this, during 1976 the *Illinois Medical Journal* will include articles and items related to medical history and try to identify the important role medicine has played in the development of our country. In an attempt to capture the essence of what Illinois medicine may have been like 200 years ago, artist George Brownlee has depicted a crude hut with a man of medicine attending the needs of an ill person.

Of course, we do not know specifically how Illinois fared medically, since the record is dim and sketchy. To summarize what is known, and also indulge in some eclectic speculation, Mr. Dan Malkovich has supplied a feature article. A history buff, he is editor of "Outdoor Illinois" and has ties to the settlers of Fort Chartres, Illinois, in 1720.

Medicine today certainly has come a long way from its rudimentary beginnings. The indefatigable efforts of physicians to bring help to people and to assure a high standard of living must be recognized during this commemorative year.

The *Illinois Medical Journal* hopes that by this effort there will be a continuation of pride in the profession, while calling to mind the great amount of service and dedication afforded in the past. There must be a continuation of the zeal expressed by early physicians to continue to provide the citizens with the highest quality health care possible.

Ed.

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Precautions: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The central-nervous-system depressant effect of propoxyphene may be additive with that of other C.N.S. depressants.

Adverse Reactions: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, lightheadedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses exceeding 800 mg. per day has caused toxic psychoses and convulsions.

[011375]

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Precautions: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The central-nervous-system depressant effect of propoxyphene may be additive with that of other C.N.S. depressants. Phenacetin has been reported to damage the kidneys when taken in large amounts for a long time. Salicylates may enhance the effect of anticoagulants and inhibit the uricosuric effect of uricosuric agents.

Adverse Reactions: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, lightheadedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses exceeding 800 mg. per day has caused toxic psychoses and convulsions.

[011375]



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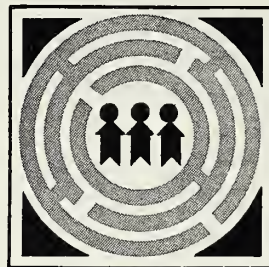


for mild to
moderate pain



See summary of prescribing
information on adjoining page.

Editorials



Bottled Water

The sale of bottled water has soared in the last few years. It is estimated that 500,000 families now are drinking 1.1 billion quarts a year. This will double by 1980. Almost 90% is sold in five states, of which Illinois is one.

Those who prepare glass jugs of "spring" or "purified" water feel this stems from the frequent complaint that tap water tastes just awful. A more logical explanation is the growing belief that our rivers and lakes are polluted. In addition, some people do not believe in adulteration of food or water. Obviously, there are minerals and chemicals in most city waters, but to my knowledge there is no proof that these are harmful. Exceptions occur in areas where dangerous industrial effluent are discharged into rivers and lakes from which drinking water is obtained.

There is no doubt that most of us prefer pure lake, well, or natural spring water. We do, provided it does not have an odor, sulfur taste or sediment. Illinois is fortunate indeed to have more than its share of fresh water—a situation that does not exist in many countries. But despite our "well of plenty," we are still among the five leading states using bottled water.

The U.S. Environmental Protection Agency (EPA) recently announced stricter standards for public drinking water. This is aimed at contaminants such as bacteria, organic chemicals and pesticides. But bottled water does not fall under the jurisdiction of the EPA, unless shipped interstate. There are strict FDA regulations regarding cleanliness, processing, shipment, storage, etc. Since most bottled water coming into Illinois comes from out-of-state we can assume it has been checked.

Most of us recall the report that the water from a well known Wisconsin dealer was found by the FDA to be contaminated. This came as a surprise, but was soon forgotten. I doubt if sales suffered.

Bottled water is not necessarily purer than the tap water in your community. It depends upon the source, and the integrity of the local health department. There are many different types of bottled water and most of it is at least as good as tap water. I'm satisfied with the water we get from Lake Michigan, and it is cheaper.

T. R. Van Dellen, M.D., *Editor*

main purpose of drug information for the patient is to get his cooperation in following a drug regimen.

Preparation and distribution of patient drug information

We would hope to amass information from physicians, medical societies, the pharmaceutical industry and centers of medical learning. The ultimate responsibility for uniform labeling must, however, rest with the Food and Drug Administration. There is nothing wrong with this agency saying, "this information is generally agreed upon and therefore it should be used," as long as our process for getting the information is sound.

Distribution of the information is a problem. In great measure it would depend on the medication in question. For example, in the case of an injectable long-acting progesterone, we would think it mandatory to issue two separate leaflets—a short one for the patient to read before getting the first shot and a long one to take home in order to make a decision about continuing therapy. In this case, the information might be put directly on the package and not removable at all. But for a medication like an antihistamine this information might be issued separately, thus giving the physician the option of distribution. This could preserve the placebo use, etc.

It is in the distribution of patient information that the pharmacist may get involved. As professionals and members of the health-care team and as a most important source of drug information to patients, pharmacists should be responsible for keeping medical and drug records on patients. It is also logical that they should distribute drug information to them.

Realistic problems must be considered

We have to expect that the introduction of an information device will also create new problems. First, how can we communicate complex and sophisticated information to people of widely divergent socioeconomic and ethnic groups? Second, what will we say? And third, how can we counteract the negative attitude of many physicians toward any outside influence or input? Hopefully the medical profession will respond by anticipating the problems and helping to solve them. Assuming we can also solve the difficulty of communicating information to diverse groups throughout the United States, our remaining task will be the inclusion of appropriate material.

What information is appropriate?

In my opinion, technical, chemical and such types of material should not be included. And there is

no point in the routine listing of side effects like nausea and vomiting which seem to apply to practically all drugs, unless it is common with the drug. However, serious side effects should be listed, as should information about a medication that is potentially risky for other reasons.

Other pertinent information might consist of drug interactions, the need for laboratory follow-up, and special storage requirements. What we want to include is information that will help increase patient compliance with the therapy.

Positive aspects of patient drug information

Labeling medication for the patient would accomplish a number of good things: the patient could be on the lookout for possible serious side effects; his compliance would increase through greater understanding; the physician would be a better source of information since he would be freer to use his time more effectively; other members of the health-care team would benefit through patient understanding and cooperation; and, finally, the physician-patient relationship would probably be enhanced by the greater understanding on the part of the patient of what the physician is doing for him.

Only the doctor can remove that fear by 20 or 30 minutes of conversation.

I'm not suggesting that we withhold any information from the patient because, first of all, it would be totally dishonest and secondly, it would defeat the very purpose of the insert. I do think that a patient on the birth control pill should know about the incidence of phlebotrombosis.

If you're going to tell a patient the incidence of serious adverse reactions, then you have to tell him that a concerned medical decision was made to use a particular medication in his situation after careful consideration of the incidence of complications or side effects.

Emotionally unstable patients pose a special problem

There are patients who, because of severe emotional problems, could not handle the information contained in a patient package insert. Yet if we are going to have a package insert at all, we just can't have two inserts. I think we might simply have to tell the families of these patients to remove the insert from the package.

Legal implications of the patient package insert

Just what effect would a pa-

tient package insert have on malpractice? We could try to avoid any legal implications by pointing out that the physician has selected a particular medication because, in his professional judgment, it is the treatment of choice. For instance, you can't tell everyone taking antihistamines not to work just because a few patients develop extreme drowsiness which can lead to accidents. And what about the very small incidence of aplastic anemia rarely associated with chloramphenicol? If, based on sensitivity studies and other criteria, we decide to employ this particular antibiotic, we do so in full knowledge of this serious potential side effect. It's not a simple problem.

How do we handle an insert for medication used for a placebo effect?

With rare exceptions, physicians no longer use medications for a placebo effect. This question does raise the issue of how a patient may react to receiving a medication without a package insert.

Preparation of the package insert

The development of the insert ought to be a joint operation between physicians, the pharmaceutical industry, the A.M.A. and the F.D.A.

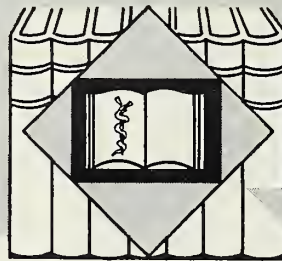
I view the A.M.A.'s role as a coordinator or catalyst. It is the only organization through which the profession as a whole, irrespective of specialty, can speak. It has relatively instant access to all the medical expertise in this country. And it can bring that professional expertise together to ensure a better package insert. The A.M.A. can work in conjunction with the industry that has produced the product and which is ultimately going to supply the insert.

I don't think we should rely, or expect to rely, on legislative committees and their nonprofessional staffs to make these decisions when it is perfectly within the power of the two groups to resolve the issues in the very best American tradition—without the government forcing us to do it. I think the F.D.A. has to be involved, but I'd like them to become involved because they were asked to become involved.

Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



the doctor's library



WHO SHALL LIVE? HEALTH, ECONOMICS AND SOCIAL CHOICE, Victor R. Fuchs, Ph.D. Basic Books, New York, N.Y. 1974. 151 pages. \$8.95.

In an era when almost all aspects of health care are in controversy, Fuchs offers a concise, dispassionate analysis of major importance. Indeed, publication of this book may well mark the turning point from heated and often irrelevant argument, to rational dialog on the hard issues.

As an economist, he poses the basic economic question: Given limited resources, how do we *want* to spend them? As a scholar in health economics, he offers a framework for decision-making that takes account of both economic and human considerations. If summary of an already tightly-written work be possible, Fuch's essential message emerges as two sides of the same coin: (1) There is no direct relationship between the amount of money spent on health care, and the quality of care provided, *and* (2) we do not have data on many aspects of health care sufficient to permit rational decisions.

Aside from its other virtues, WHO SHALL LIVE is written in plain language, to achieve Fuchs' announced aim: To reach an influential audience in all sectors of American life, with the hope of improving the quality of decisions on the nation's health.

Physicians interested only in the biomedical aspects of patient treatment will be bored by the breadth of Fuchs' viewpoint, as will all those with a particular axe to grind. By contrast, medical leadership and others concerned with influencing the newly emerging public health policy in constructive directions will find in Fuchs a wealth of ideas, stimulation, and guidance.

Of particular interest to doctors is Fuchs' examination of the physician's role as chief medical decision-maker, "The Captain of the Team." Accepting implicitly the validity of this role, he offers an eye-opening description of how medical

decisions are inhibited by all the other factors involved in health care—public policy on provision of facilities and manpower, patient behavior, insurance regulations, the growth of specialization and other aspects of medical training, the organization of health professionals, etc.

Few will read this book, every doctor should; this reviewer is hopeful that every leader of physicians will.

Leonard S. Stein, Ph.D.
*Executive Director, Illinois Council on
Continuing Medical Education*

Membership Forum

Dear Editor:

In the October edition Illinois State Medical Society *Journal*, you had an article by Joyce Lashof, M.D., regarding the Medichex Program. I would like to make objection to several statements in this article which are grossly in error. I would also like to point out that the author has assumed unilateral direction of this program of little cooperation with the Illinois State Medical Society. I feel further publishing by this author in our journal is not in keeping with the ideals and policies of the Illinois State Medical Society. I further feel a rebuttal article on the Medichex Program to correct the inadequacy should be written in a future edition by a capable physician here in the Illinois State Medical Society.

Sincerely
George T. Wilkins, M.D.

DYAZIDE[®]

MAKES SENSE

Each capsule contains 50 mg. of Dyrenium[®] (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

Trademark

**TRIAMTERENE CONSERVES POTASSIUM
WHILE HYDROCHLOROTHIAZIDE
LOWERS BLOOD PRESSURE**

**FOR LONG-TERM CONTROL
OF HYPERTENSION***

Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary

* Warning

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema, edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

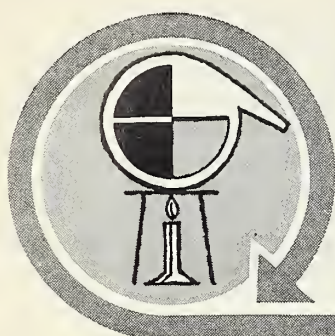
Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation



new pharmaceutical specialties

By PAUL DEHAEN

For detailed information regarding indications, dosage, contraindications and adverse reactions, refer to the manufacturer's package insert or brochure.

New Single Drugs—Drugs not previously known, including new salts.

Duplicate Single Drugs—Drugs marketed by more than one manufacturer.

Combination Products—Drugs consisting of two or more active ingredients.

New Dosage Forms—Of a previously introduced product.

The following new drugs have been marketed:

NEW SINGLE DRUGS

MUTAMYCIN	Cancer chemotherapy Rx
Manufacturer:	Bristol Laboratories
Nonproprietary Name:	Mitomycin C
Indications:	Disseminated adenocarcinoma of the stomach or pancreas in combination with other chemotherapeutic agents.
Contraindications:	Thrombocytopenia, coagulation disorder, or increase in bleeding tendency due to other causes.
Dosage:	To be given i.v. only; see package insert.
Supplied:	Vials 5 mg., for i.v. injection.

DUPLICATE SINGLE DRUGS

GAMULIN Rh	Biological Rx
Manufacturer:	Parke Davis
Nonproprietary Name:	Rho (D) Immune Globulin (Human)
Indications:	Suppresses immune response of nonsensitized Rho (D) negative mothers following Rh incompatible pregnancies.
Precautions:	Diagnostic and laboratory criteria must be met before administration.
Dosage:	See package insert.
Supplied:	Single dose vials.

MAXIDEX Ophthal, Ointment Corticoide Local Rx

Manufacturer:	Alcon Laboratories, Inc.
Nonproprietary Name:	Dexamethasone Sodium Phosphate
Indications:	Corticosteroid responsive inflammatory diseases of the eye.
Contraindications:	Those applying to corticosteroids, if applied to the eye.
Dosage:	Apply a one-half to one inch ribbon of ointment into the conjunctival sac(s) three to four times daily. Dosage may be reduced gradually.
Supplied:	Ophthalmic tubes, 3.5 gm.; 0.5%

COMBINATION PRODUCTS

POLY-VI-FLOR With Iron Vitamins Pediatric Rx

Manufacturer:	Mead Johnson & Co.
Composition:	50 ml contains:
	Fluoride 0.5 mg
	Vitamin A 2000 U
	Vitamin D 400 U
	Vitamin E 5 I U
	Vitamin C 60 mg
	Vitamin B ₁ 0.6 mg
	Vitamin B ₂ 0.7 mg
	Vitamin B ₆ 0.6 mg
	Pantothenic acid 4 mg
	Niacinamide 8 mg/0.6 ml
	Iron 10 mg
Indications:	Dietary inadequacies
Dosage:	1.0 ml daily.
Supplied:	Bottles, 50 mg in drops.

SULFOXYL Lotion Dermatological Preparation Rx

Manufacturer:	Stiefel Laboratories, Inc.
Composition:	Regular:
	Benzoyl peroxide 5%
	Sulfur 2%
	Strong:
	Benzoyl peroxide 10%
	Sulfur 5%
Indications:	Topical therapy of acne.
Dosage:	Apply as needed.
Supplied:	Bottles, 10 oz.

BRIEF SUMMARY

(For full prescribing information, see package circular.)

PREMARIN®

(Conjugated Estrogens Tablets, U.S.P.)

Indications: Based on a review of PREMARIN Tablets by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications for use as follows:

Effective: As replacement therapy for naturally occurring or surgically induced estrogen deficiency states associated with: the climacteric, including the menopausal syndrome and postmenopause; senile vaginitis and kraurosis vulvae, with or without pruritus. **"Probably" effective:** For estrogen deficiency-induced osteoporosis, and only when used in conjunction with other important therapeutic measures such as diet, calcium, physiotherapy, and good general health-promoting measures. Final classification of this indication requires further investigation.

Contraindications: Short acting estrogens are contraindicated in patients with (1) markedly impaired liver function; (2) known or suspected carcinoma of the breast, except those cases of progressing disease not amenable to surgery or irradiation occurring in women who are at least 5 years postmenopausal; (3) known or suspected estrogen-dependent neoplasia, such as carcinoma of the endometrium; (4) thromboembolic disorders, thrombophlebitis, cerebral embolism, or in patients with a past history of these conditions; (5) undiagnosed abnormal genital bleeding. **Warnings:** Estrogen therapy should not be given to women with recurrent chronic mastitis or abnormal mammograms except, if in the opinion of the physician, it is warranted despite the possibility of aggravation of the mastitis or stimulation of undiagnosed estrogen-dependent neoplasia.

The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, retinal thrombosis, cerebral embolism and pulmonary embolism).

If these occur or are suspected, estrogen therapy should be discontinued immediately.

Estrogens may be excreted in the mother's milk and an estrogenic effect upon the infant has been described. The long range effect on the nursing infant cannot be determined at this time.

Hypercalcemia may occur in as many as 15 percent of breast cancer patients with metastases, and this usually indicates progression of bone metastases. This occurrence depends neither on dose nor on immobilization. In the presence of progression of the cancer or hypercalcemia, estrogen administration should be stopped.

A statistically significant association has been reported between maternal ingestion of diethylstilbestrol during pregnancy and the occurrence of vaginal carcinoma in the offspring. This occurred with the use of diethylstilbestrol for the treatment of threatened abortion or high risk pregnancies. Whether or not such an association is applicable to all estrogens is not known at this time. In view of this finding, however, the use of any estrogen in pregnancy is not recommended.

Failure to control abnormal uterine bleeding or unexpected recurrence is an indication for curettage.

Precautions: As with all short acting estrogens, the following precautions should be observed:

A complete pretreatment physical examination should be performed with special reference to pelvic and breast examinations.

To avoid prolonged stimulation of the endometrium and breasts in climacteric or hypogonadal women, estrogens should be administered cyclically (3 week regimen with 1 week rest period—withdrawal bleeding may occur during rest period).

Because of individual variation in endogenous estrogen production, relative overdosage may occur which could cause undesirable effects such as abnormal or excessive uterine bleeding, mastodynia and edema.

Because of salt and water retention associated with estrogenic anabolic activity, estrogens

should be used with caution in patients with epilepsy, migraine, asthma, cardiac, or renal disease.

If unexplained or excessive vaginal bleeding should occur, reexamination should be made for organic pathology.

Pre-existing uterine fibromyomata may increase in size while using estrogens; therefore, patients should be examined at regular intervals while receiving estrogenic therapy.

The pathologist should be advised of estrogen therapy when relevant specimens are submitted.

Because of their effects on epiphyseal closure, estrogens should be used judiciously in young patients in whom bone growth is incomplete.

Prolonged high dosages of estrogens will inhibit anterior pituitary functions. This should be borne in mind when treating patients in whom fertility is desired.

The age of the patient constitutes no absolute limiting factor, although treatment with estrogens may mask the onset of the climacteric.

Certain liver and endocrine function tests may be affected by exogenous estrogen administration. If test results are abnormal in a patient taking estrogen, they should be repeated after estrogen has been withdrawn for one cycle.

Adverse Reactions: The following adverse reactions have been reported associated with short acting estrogen administration:

nausea, vomiting, anorexia
gastrointestinal symptoms such as abdominal cramps and bloating
breakthrough bleeding, spotting, unusually heavy withdrawal bleeding (See DOSAGE AND ADMINISTRATION)
breast tenderness and enlargement
reactivation of endometriosis
possible diminution of lactation when given immediately postpartum
loss of libido and gynecomastia in males
edema
aggravation of migraine headaches
change in body weight (increase, decrease)
headache
allergic rash

hepatic cutaneous porphyria becoming manifest
Dosage and Administration: PREMARIN should be administered cyclically (3 weeks of daily estrogen and 1 week off) for all indications except selected cases of carcinoma and prevention of postpartum breast engorgement.

Menopausal Syndrome—1.25 mg. daily, cyclically. Adjust dosage upward or downward according to severity of symptoms and response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

If the patient has not menstruated within the last two months or more, cyclic administration is started arbitrarily. If the patient is menstruating, cyclic administration is started on day 5 of bleeding. If breakthrough bleeding (bleeding or spotting during estrogen therapy) occurs, increase estrogen dosage as needed to stop bleeding. In the following cycle, employ the dosage level used to stop breakthrough bleeding in the previous cycle. In subsequent cycles, the estrogen dosage is gradually reduced to the lowest level which will maintain the patient symptom-free.

Postmenopause—as a protective measure against estrogen deficiency-induced degenerative changes (e.g. osteoporosis, atrophic vaginitis, kraurosis vulvae)—0.3 mg. to 1.25 mg. daily and cyclically. Adjust dosage to lowest effective level.

Osteoporosis (to retard progression)—usual dosage 1.25 mg. daily and cyclically.

Senile Vaginitis, Kraurosis Vulvae with or without Pruritus—0.3 mg. to 1.25 mg. or more daily, depending upon the tissue response of the individual patient. Administer cyclically.

How Supplied: PREMARIN (Conjugated Estrogens Tablets, U.S.P.)

No. 865—Each purple tablet contains 2.5 mg., in bottles of 100 and 1,000.

No. 866—Each yellow tablet contains 1.25 mg., in bottles of 100 and 1,000. Also in unit dose package of 100.

No. 867—Each red tablet contains 0.625 mg., in bottles of 100 and 1,000.

No. 868—Each green tablet contains 0.3 mg., in bottles of 100 and 1,000. 7352

PREMARIN®

BRAND
OF **CONJUGATED
ESTROGENS
TABLETS, U.S.P.**

**CONTAINS ONLY
NATURAL ESTROGENS
...NO SYNTHETICS
OR SUPPLEMENTS**

Ayerst.

AYERST LABORATORIES
New York, N.Y. 10017

Mandatory CME — ISMS is Ready!

By J. M. INGALLS, ISMS PRESIDENT

Illinois has now joined the seven other states that impose or allow a CME requirement for continued medical licensure. Four of those states—Michigan, Ohio, Washington, and Wisconsin—acted in 1975, as did Illinois. There is reason to believe that other states will enact similar laws in the near future.

Your State Society anticipated this possibility five years ago, and has been working since to prepare for this eventuality. Two major actions highlight this preparation:

1. In 1969, ISMS President Edward W. Cannady proposed creation of the Illinois Council on Continuing Medical Education—a unique combination of ISMS and this State's medical schools; in 1970, the House of Delegates approved the idea in principle and in 1971 approved initial funding.
2. In 1972, ISMS was among the first eleven state medical societies to accept the invitation of AMA to take responsibility for CME accreditation of hospital programs and other CME activities. Many people have worked steadily since to develop a high quality CME accreditation process for Illinois. One result of this effort is that in 1975, AMA suggested that samples of our accreditation materials be sent to the forty other state societies now authorized by AMA to conduct intra-state CME accreditation.

More important: Your officers and trustees have been gratified by a repeated comment from those hospitals and other CME sponsors that have sought accreditation of their CME programs—that the *process itself* has proved to be a valuable learning experience on how to plan effective continuing education.

The Illinois Re-Licensure Procedure

A 1975 amendment to the Medical Licensing Act provides that the Department of Registration & Education "promulgate mandatory requirements of continuing education. . . ." The Department has not yet formulated regulations. In other states with similar laws, however, CME accreditation under the AMA system has been central. *Eg.*, in both Maryland and New Mexico physicians satisfy the mandatory CME law by earning the AMA Physician's Recognition Award

—for which a certain number of hours must be gained annually from accredited CME sponsors. The Ohio law, passed in 1975, requires physicians in each three-year period to complete "150 hours of CME certified by the Ohio State Medical Association and approved by the (State Medical) Board."

There is reason to hope, therefore, that ISMS will play a major role in the formulation of the Illinois CME requirements for continued licensure—especially in view of the high quality of our CME accreditation process.

The Illinois Council on Continuing Medical Education

Every Illinois physician owes thanks to Ed Cannady for proposing creation of ICCME, and to his successor as President, J. Ernest Breed, for organizing this Council. The organizing Committee began its work in early 1972, when initial funds became available, and began actual operations with appointment of an Executive Director in September of that year.

Here are the major services ICCME offers to help you and your colleagues organize the quality of CME necessary to meet this new State law:

1. The Illinois Hospital CME Consultation Service: a unique opportunity for your hospital medical staff to explore its strengths and weaknesses and identify approaches to effective in-hospital CME that fit your local situation. Copies of the green self-analysis booklet are *free* upon request; for a personal consultation with an expert, a small fee is necessary to cover honorarium to the consultant, and related costs.
 2. Informal consultation on accreditation: the ICCME Executive Director is available upon request—and at no cost—to assist you in planning a CME program and in preparing for formal accreditation of that program.
 3. Intensive Weekend Workshops on CME Techniques: one was offered in 1974; two in 1975; more will be offered in response to demand. (Incidentally, ICCME is now the *only* agency in the nation offering this kind of training opportunity.)
 4. Publications and Reprints: all are free to Illinois physicians. Over 10,000 copies of
- (Continued on page 24)

If your angina patient* isn't having 3 out of 4 better days than usual... try Cardilate® (ERYTHRITYL TETRANITRATE)

*Please note: unstable angina patients may be refractory to all long-acting nitrates.

INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset of action is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrates, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilatation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustment of the cerebral hemodynamics to the initial marked cerebral vasodilatation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

SUPPLIED: 10 mg chewable tablets, bottle of 100. Also 5, 10 and 15 mg scored tablets in bottles of 100. 10 mg scored tablets also supplied in bottle of 1,000.

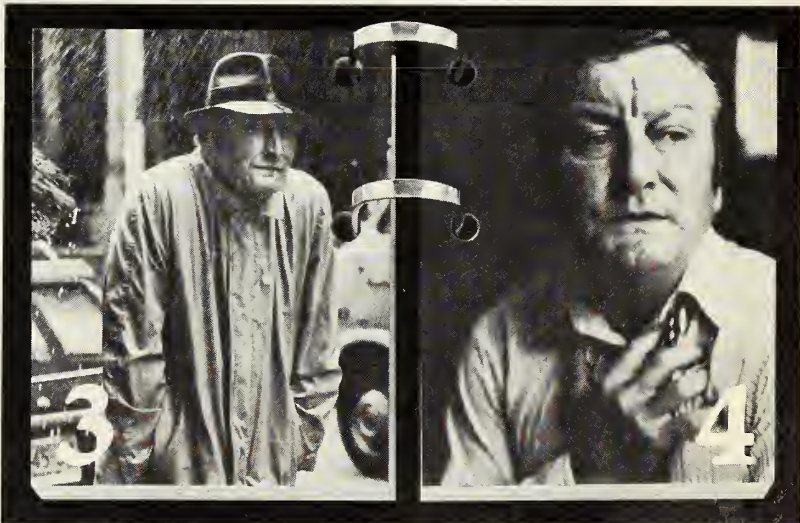
Also available: Cardilate®P brand Erythrityl Tetranitrate with Phenobarbital* (*Warning: may be habit-forming).

1. Russek HJ: AM J M Sc 239:478, 1960



"Pain days" significantly reduced with Cardilate® (erythrityl tetranitrate) in 48-patient study.¹ Patients on placebo experienced same pain as usual or increased pain 2 days out of 3...compared to 1 day out of 4 while on Cardilate.

Rapid-acting chewable tablets (10mg) preferred by many patients. Should be given before anticipated periods of stress to produce an action within 5 minutes and lasting up to 2 hours. Sublingual tablets also available.



Effective prophylaxis against attacks; increases exercise tolerance. Serious side effects have not been reported in 20 years' clinical use.

Cardilate can save patients money; is less expensive than many popular long-acting nitrates. 20% to 30% savings not uncommon...also helps reduce need for nitroglycerin.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Mandatory CME

(Continued from page 22)

Your *Personal Learning Plan* have been distributed since late 1973; it offers the individual practitioner a systematic approach to planning an individualized CME program to make most effective use of limited time available.

In addition, ICCME has produced another dozen pamphlets and reprints on CME planning, primarily for DME's and Program Chairman, practical "how-to-do-it" guides that reflect sound educational principles applied to medical situations.

5. The Annual Illinois Congress on CME: ours is the only state in the nation sponsoring this kind of event, a meeting every Spring where physicians—both practitioners and professors—gather to share ideas and problems, gain new insights from experts on CME, and renew their vigor for the never-ending task of helping colleagues grow professionally and personally.
6. Monthly CME Calendar in *Illinois Medical Journal*: this lists an array of learning opportunities available throughout Illinois and in adjacent states.

Two more ICCME activities are now in the planning stages:

First, a "Visiting Professor Program," under which biomedical scientists will be available to spend a day in your local hospital, engaging in activities you and your colleagues think most useful: e.g., consultation on individual patients, bedside rounds, informal discussion with small groups of the medical staff, case-discussion sessions.

Second, the "Illinois CME Fellowship Program," an opportunity for practitioners to spend brief periods in residence at a major medical center.

For more information on ICCME services and activities, write or telephone their Executive Director, Leonard S. Stein, Ph.D., at Illinois Council on Continuing Medical Education, 55 E. Monroe St., Suite 3510, Chicago, IL 60603. Telephone: (312) 236-6110.

Conclusion

The Illinois State Medical Society really has been working to help you satisfy the mandatory CME law . . . conveniently, inexpensively, efficiently, effectively. ◀

Some Guidelines for Prescribers of Controlled Drugs

1. Keep your prescription blanks in a safe place where they can't be stolen easily. Minimize the number of Rx pads in use.
2. Write Rxs for Schedule II drugs in ink or indelible pencil or use a typewriter. They must be signed by the physician.
3. Write out the actual amount prescribed in addition to giving an arabic number or Roman numeral—in order to discourage alterations in written prescriptions.
4. Avoid writing prescriptions for large quantities of controlled drug products unless you absolutely determine that such quantities are necessary.
5. Maintain only a minimum stock of controlled drugs in your medical bag.
6. Take your medical bag with you when you're away from your automobile or lock it in the trunk.
7. Be cautious when a patient tells you that another physician had been prescribing a controlled drug product for him. Consult the physician or the hospital records—or else examine the patient thoroughly and decide for yourself if a controlled drug product should be prescribed.
8. Prescription blanks should only be used for writing prescriptions—and not for notes or memos. A drug abuser could easily erase the message, and use the blank to forge a prescription.
9. Never sign Rx blanks in advance.
10. Maintain an accurate record of controlled drug products you have dispensed—as required by the Controlled Substances Act of 1970 and its regulations.
11. Assist the pharmacist when he telephones you to verify information about a prescription you may have written. A corresponding responsibility rests with the pharmacist who dispenses the prescription.
12. Phone the nearest office of the *Drug Enforcement Administration* to obtain or to furnish information. Your call will be held in the strictest confidence.

Thanks to Harris County Medical Society,
Texas

Obituaries

***Akkeron, Alfred**, Melrose Park, died December 5 at the age of 68. Dr. Akkeron graduated from Chicago Medical School in 1939.

***Cywinski, Casiner**, Chicago, died November 27 at the age of 72. He graduated from the University of Illinois in 1929.

***Diller, Harold**, Peoria, died October 21 at the age of 81. Dr. Diller graduated from University of Illinois in 1920. He had practiced medicine for over 50 years.

***Fast, H. Mackinaw**, died December 6 at the age of 98. Dr. Fast was medical director of the Oak Knolls T.B. Sanitarium. He graduated from University of Illinois in 1906.

***Frankel, Joseph**, Indianapolis, died November 30 at the age of 63. Dr. Frankel graduated from Temple University in 1936.

***Jiang, Ting-Bor**, Chicago, passed away at the age of 30.

***Laurich, J.**, Lake Villa, died August 9, at the age of 52. Dr. Laurich graduated from Ludwig Maximilian University in Munich.

***Pope, Mary**, Evanston, died December 9 at the age of 87. Dr. Pope graduated from Washington University in 1924.

***Sachtleban, Walter**, Chicago, died November 18 at the age of 82. He graduated from Hahneman in 1916.

***Schairer, Arne**, Chicago, died November 20, at the age of 53. He graduated from Chicago Medicine in 1947. Dr. Schairer was former president of the Medical staff at Mercy Hospital.

***Schultz, Louis**, River Forest, died November 22 at the age of 81. He graduated from University of Illinois in 1928. Dr. Schultz was past president of the Odontographic Society of Chicago and the Chicago Society of Oral Surgeons.

***Szymczak, Francis**, Arizona, died December 7 at the age of 75. Dr. Szymczak graduated from Stritch Medical School in 1925.

***Van Landingham, H.**, Rockford, died December 11 at the age of 70. He graduated from University of Oklahoma in 1934.

*Indicates ISMS member

**Indicates ISMS member and member of the Fifty Year Club

- ▲ **Milwaukee Psychiatric Hospital** { Intensive, dynamic psychotherapy for adults and adolescents, individually planned activity therapy.
- ▲ **Milwaukee Sanitarium** { Geriatric program of superior care . . . custodial services for persons with chronic emotional illness.
- ▲ **Dewey Center** { Acute detoxification and inpatient treatment for alcoholic dependency, daily schedules, broad supportive services.

Units of: **MILWAUKEE SANITARIUM FOUNDATION**
1220 DEWEY AVENUE • WAUWATOSA, WIS. 53213 • PHONE (414) 258-2600

Affiliated with Medical College of Wisconsin

Accredited by the Joint Commission on Accreditation of Hospitals

Non-Profit Non-Sectarian Est. 1884 Participating Member Blue Cross-Blue Shield



An important new antibiotic for serious gram-negative infections*

 wide investigational experience already in these areas



now available
for hospitalized patients
in your community

*Due to indicated susceptible organisms.

WARNINGS

Patients treated with Nebcin® (tobramycin sulfate, Lilly) should be under close clinical observation, because tobramycin and other aminoglycoside antibiotics have an inherent potential for causing ototoxicity and nephrotoxicity.

Both vestibular and auditory ototoxicity can occur. Eighth-nerve impairment may develop if patients have pre-existing renal damage and if Nebcin is administered for longer periods or in higher doses than those recommended.

Tobramycin is potentially nephrotoxic. Renal and eighth-nerve function should be closely monitored in patients with known or suspected renal impairment and also in those whose renal function is initially normal but who develop signs of renal dysfunction during therapy. Such impairment may be characterized by cylindruria, oliguria, proteinuria, or evidence of nitrogen retention (increasing BUN, NPN, or creatinine). Evidence of impairment in renal, vestibular, or auditory function requires discontinuation of the drug or dosage adjustment.

Nebcin should be used with caution in premature and neonatal infants because of their renal immaturity and

the resulting prolongation of serum half-life of the drug.

In the case of overdosage or toxic reactions, peritoneal dialysis or hemodialysis will help remove tobramycin from the blood.

Serum concentrations should be monitored when feasible, and prolonged concentrations above 12 mcg./ml. should be avoided. Urine should be examined for increased excretion of protein, cells, and casts.

Concurrent and sequential use of other neurotoxic and/or nephrotoxic antibiotics, particularly streptomycin, neomycin, kanamycin, gentamicin, cephaloridine, paromomycin, viomycin, polymyxin B, and colistin, should be avoided.

Nebcin should not be given concurrently with potent diuretics. Some diuretics themselves cause ototoxicity, and intravenously administered diuretics enhance aminoglycoside toxicity by altering antibiotic concentrations in serum and tissue.

Usage in Pregnancy—Safety of this product for use during pregnancy has not been established.

Abstracts of Board Actions

November 10, 1975

Springfield

State Advisory Boards

The Board of Trustees established the following position regarding physicians appointed to state advisory boards:

"While physicians appointed to state advisory boards should not object to signing statements regarding conflict of interest, they should not feel obligated to provide the state with financial disclosure statements required of elected or appointed administrative officials of the state."

The position was established in connection with the ISMS nomination of Dr. J. M. Ingalls, Paris, for appointment to the Hospital Licensing Board, and Drs. Gwendolyn Boyd Schmidt, Chicago, and Frederick E. Weiss, Harvey, to the Ambulatory Surgical Treatment Center Licensing Board.

1976 Board Meeting Dates

The following dates and sites were approved for Board of Trustees' meetings in 1976:

Jan. 25-28-Washington, D.C.

Apr. 25-28-Annual, Palmer House

June 12-13-Marriott Motor Hotel

Aug. 21-22-Pheasant Run

Oct. 30-31-Downstate (subject to available accommodations and site)

Endorsement of Dr. Frank Jirka, Jr. for AMA Office

Re-election of Dr. Frank J. Jirka, Jr. to the AMA Board of Trustees was endorsed. The Illinois Delegation to the AMA and the Chicago Medical Society also endorsed Dr. Jirka.

Drivers License Decals

ISMS declined a request from the Secretary of State's office to print and distribute decals for driver's licenses indicating that the owner carries a Uniform Anatomical Gift card.

IMPAC Billing

The Board rejected a suggestion that IMPAC contributions be included in the total ISMS dues billing rather than listed separately. The committee said that some members might misinterpret the IMPAC payment as a mandatory part of dues.

Workshops for New Physicians

ISMS will sponsor a workshop April 6-7, 1976, for new physicians planning to enter private practice. These workshops are conducted by professional consultants retained by the AMA. Registration fees cover all materials. Enrollment will be limited to 27 physicians.

Protest IDPA Actions

In an August 28 letter to James Trainor, Director of the Illinois Department of Public Aid, ISMS: (A) Acknowledged IDPA's authority to conduct fiscal audits among physicians, but questioned its authority to conduct medical audits; (B) Requested clarification of the IDPA coding policy for Medicaid reimbursements

specifically relating to "new spells of illness" for the same patients; and (C) Requested IDPA to withdraw or at least postpone implementation of its new rule prohibiting photocopies of the Medical Eligibility card.

Proposed litigation to enjoin IDPA from implementing its proposed reimbursement cutbacks was held in abeyance as a result of Director Trainor's announcement that "The Department has decided to defer implementation of the originally planned adjustments & reassess their impact . . . as a result of the objections of ISMS & others."

In a related action, the Board authorized presentation of a resolution to the special session of the House of Delegates calling for creation of a not-for-profit corporation to function as a negotiating unit for physicians in dealing aggressively with the conditions and terms of payment under government health programs. While the Board recognized the need for a negotiating unit, it believed the House of Delegates should decide whether the unit should be a new unit under the umbrella of ISMS or delegated to the existing Illinois Foundation for Medical Care.

Financial Items

Upon recommendation of the Executive Committee, the Board agreed to:

- A. Procedures established for recovering dues payments from AMA for physicians dropped for non-payment of the 1974-75 special assessment.
- B. Dissolve the Benevolent Fund as it now exists and establish a charitable corporation for medical benevolence, with the members of the Finance Committee serving as the incorporators and first Board of Trustees of such corporation. It further recommended that suitable contributions be given to such corporation.
- C. Submit to the 1976 House of Delegates a report indicating that sponsorship of semi-annual meetings of the House would increase the Society's operating expenses by \$13,600.

Relative Value Study

Production on the new Relative Value Study, ordered by the 1973 House of Delegates, was postponed because of a pending antitrust suit challenging the legality of RVS. The 1976 House of Delegates will be apprised of the status of the litigation and asked to reconsider its position. In challenging the legality of RVS, the Justice Department contends that the American Society of Anesthesiologists has established "artificial and noncompetitive levels" of charges through setting schedules for operations.

Malpractice Insurance

The Board took the following actions related to the ISMS professional liability insurance program:

1. Subject to available funding, accepted an American Health Systems, Inc. proposal to provide ISMS with data system capability and technical consulting services in the management of its professional liability program. The system would give ISMS the ability to determine how each dollar premium paid into the program is used; monitor each claim file as it is opened and each dollar as it is used as a claim reserve; provide access to continuing compilations of claims information.
2. Endorsed a resolution calling for a mandatory \$50 assessment. The funds would be used to "further the plans and programs developed by the Task Force on Professional Liability and in the advocacy of the rights of ISMS members versus the . . . directives . . . of several state regulatory agencies. . . ." The assessment would replace the \$10 levy approved by the House last April and would apply to all full-dues paying members during 1976. (The House subsequently increased this assessment to \$75 to include costs of negotiating with IDPA.)

(Continued on page 74)

Clinics for Crippled Children Listed for February

Thirty clinics for Illinois' physically handicapped children have been scheduled for February by the University of Illinois, Division of Services for Crippled Children. The Division will conduct twenty general clinics with diagnostic orthopedic, pediatric, speech and hearing examinations along with medical, social and nursing services. There will be eight special clinics for children with cardiac conditions, and two for children with cerebral palsy. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- February 5 Sterling, Community General Hospital
- February 5 Lake County Cardiac, Victory Memorial Hospital
- February 9 Peoria Cardiac, St. Francis Children's Hospital
- February 10 Peoria, St. Francis Children's Hospital
- February 10 E. St. Louis, Christian Welfare Hospital
- February 11 Anna, Union County Hospital
- February 11 Elgin, Sherman Hospital
- February 11 Hinsdale, Hinsdale Sanitarium
- February 11 Champaign-Urbana, McKinley Hospital
- February 12 Flora, Clay County Hospital
- February 12 Springfield, St. John's Hospital
- February 12 Kankakee, St. Mary's Hospital
- February 13 Chicago Heights Cardiac, St. James Hospital
- February 13 Division Cardiac, U. of Ill. Center for Handicapped Children
- February 17 Rock Island, Moline Public Hospital
- February 17 Belleville, St. Elizabeth's Hospital
- February 18 Jacksonville, Norris Hospital
- February 18 Chicago Heights Cardiac, St. James Hospital
- February 19 Rockford, St. Anthony's Hospital
- February 19 DuQuoin, Marshall Browning Hospital
- February 19 Elmhurst Cardiac, Memorial Hospital of DuPage County
- February 19 Bloomington, Mennonite Hospital
- February 23 Peoria Cardiac, St. Francis Children's Hospital
- February 24 Peoria, St. Francis Children's Hospital
- February 24 Danville, Lake View Hospital
- February 25 Rock Island Cerebral Palsy, Foundation for Crippled Children and Adults
- February 25 Springfield Pediatric-Neurology, Diocesan Center
- February 25 Aurora, St. Joseph Mercy Hospital
- February 27 Chicago Heights Cardiac, St. James Hospital
- February 27 Evanston, St. Francis Hospital

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization and after-care for children with crippling conditions or who are suffering from conditions that may lead to crippling. In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse association, local social and welfare agencies, local chapters of the National Foundation and other interested groups. In all cases the work of the Division is intended to extend and supplement, not supplant activities of other agencies, either public or private, state or local, carried on in behalf of crippled children.

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IN GONORRHEA

INJECTION

Wycillin®

(STERILE PROCAINE PENICILLIN G SUSPENSION) WYETH

In Gonorrhea, the drug regimen of choice is aqueous procaine penicillin G. In uncomplicated cases, administration of 4.8 million units together with 1 gram oral probenecid, given at least 30 minutes prior to injection, is recommended.

Indications: In treatment of moderately severe infections due to penicillin G-sensitive microorganisms sensitive to the low and persistent serum levels common to this particular dosage form. Therapy should be guided by bacteriological studies (including sensitivity tests) and by clinical response.

NOTE: When high sustained serum levels are required use aqueous penicillin G, IM or IV.

The following infection will usually respond to adequate dosages of intramuscular procaine penicillin G.—*N. gonorrhoeae*: acute and chronic (without bacteremia).

For deep intramuscular injection only.

Contraindication: Previous hypersensitivity reaction to any penicillin.

Warnings: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy.

Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen and intravenous corticosteroids should also be administered as indicated.

Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents e.g., pressor amines, antihistamines and corticosteroids.

Mental disturbances, including anxiety, confusion, agitation, depression, and hallucinations, have been reported in individuals following single-dose schedules for gonorrhea. Reactions have been transient, lasting from 15-30 minutes.

Precautions: Use cautiously in individuals with histories of significant allergies and/or asthma.

Carefully avoid intravenous or intraarterial use, or injection into or near major peripheral nerves or blood vessels, since such injections may produce neurovascular damage.

A small percentage of patients are sensitive to procaine. If there is a history of sensitivity, make the usual test: Inject intradermally 0.1 cc. of a 1 to 2 percent procaine solution. Development of an erythema, wheal, flare or eruption indicates procaine sensitivity. Sensitivity should be treated by the usual methods,

including barbiturates, and procaine penicillin preparations should not be used. Antihistaminics appear beneficial in treatment of procaine reaction.

The use of antibiotics may result in overgrowth of nonsusceptible organisms. Constant observation of the patient is essential. If new infections due to bacteria or fungi appear during therapy, discontinue penicillin and take appropriate measures.

If allergic reaction occurs, withdraw penicillin unless, in the opinion of the physician, the condition being treated is life threatening and amenable only to penicillin therapy.

When treating gonococcal infections with suspected primary or secondary syphilis, perform proper diagnostic procedures, including darkfield examinations. In all cases in which concomitant syphilis is suspected, perform monthly serological tests for at least four months.

Adverse Reactions: (Penicillin has significant index of sensitization) skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported. (See "Warnings.")

As with other antisyphilitics, Jarisch-Herxheimer reaction has been reported.

Dosage and Administration: Administer only by deep intramuscular injection, in upper outer quadrant of buttock. In infants and small children, midlateral aspect of thigh may be preferable. When doses are repeated, vary injection site. Before injection, aspirate to be sure needle bevel is not in blood vessel. If blood appears, remove needle and inject in another site.

Although some isolates of *Neisseria gonorrhoeae* have decreased susceptibility to penicillin, this resistance is relative, not absolute, and penicillin in large doses remains the drug of choice. Physicians are cautioned not to use less than recommended doses.

Gonorrheal infections (uncomplicated)—Men or Women: 4.8 million units intramuscularly divided into at least two doses and injected at different sites at one visit, together with 1 gram of oral probenecid, preferably given at least 30 minutes prior to injection.

NOTE: Treatment of severe complications of gonorrhea should be individualized using large amounts of short-acting penicillin. Gonorrheal endocarditis should be treated intensively with aqueous penicillin G. Prophylactic or epidemiologic treatment for gonorrhea (male and female) is accomplished with same treatment schedules as for uncomplicated gonorrhea.

Retreatment: The National Center for Disease Control, Venereal Disease Branch, U.S. Dept. H.E.W. recommends:

Test cure procedures at approximately 7-14 days after therapy. In the male, a gram-stained smear is adequate if positive; otherwise, a culture specimen should be obtained from the anterior urethra. In the female, culture specimens should be obtained from both the endocervical and anal canal sites.

Retreatment in males is indicated if urethral discharge persists 3 or more days following initial therapy and smear or culture remains positive. Follow-up treatment consists of 4.8 million units aqueous procaine penicillin G, I.M. divided in 2 injection sites at single visit.

In uncomplicated gonorrhea in the female, retreatment is indicated if follow-up cervical or rectal cultures remain positive for *N. gonorrhoeae*. Follow-up treatment consists of 4.8 million units aqueous procaine penicillin G daily on 2 successive days.

Syphilis: all gonorrhea patients should have a serologic test for syphilis at the time of diagnosis. Patients with gonorrhea who also have syphilis should be given additional treatment appropriate to the stage of syphilis.

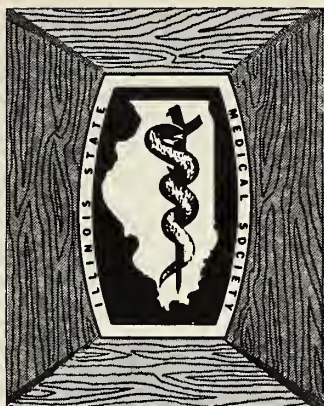
Composition: Each disposable syringe 2,400,000 units (4-cc. size) contains procaine penicillin G in a stabilized aqueous suspension with sodium citrate buffer, and as w/v approximately 0.5% lecithin, 0.5% carboxymethylcellulose, 0.5% povidone, 0.1% methylparaben, and 0.01% propylparaben. The multiple-dose 10-cc. vial contains per cc. 300,000 units procaine penicillin G in a stabilized aqueous suspension with sodium citrate buffer and approximately 7 mg. lecithin, 2 mg. carboxymethylcellulose, 3 mg. povidone, 0.5 mg. sorbitan monopalmitate, 0.5 mg. polyoxyethylene sorbitan monopalmitate, 1.2 mg. methylparaben, and 0.14 mg. propylparaben.

Five are graduating with honors. How many with VD?

On the average, you can figure the incidence of VD among teenagers at about 900 per 100,000 population* And growing.

Among those in the 20-24 age-group, the incidence is even higher. And it, too, is growing.

In the long run, a populace educated to the risks and prevention of VD is probably the best answer to the problem. Meanwhile, though, adequate doses of the recommended types of penicillin remain a formidable weapon.



I M J

Illinois Medical Journal

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Health Hazard Appraisal

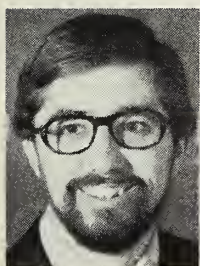
Its Application as Data Base Information and First Attempt at Measuring Its Clinical Efficacy

Part I: Data Base Information

BY JAMES J. MCCOY, M.D. AND JAMES M. SINACORE, B.A./BERWYN

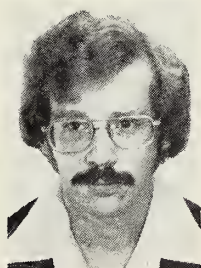
With the advent of the Health Hazard Appraisal (HHA) in prospective medicine, a relevant application for its use as additional data base information has been incorporated into the routine data base information collection at the Family Practice Center in MacNeal Memorial Hospital. With the HHA being used in this capacity it has been found that:

1. *The patient care team is placed in the perspective of viewing individuals as organisms with potential problems.*
2. *Information from the HHA adds a dynamic component to the routine data base by providing guidelines which the patient can follow in trying to answer the question: "What must I do to stay well?"*



JAMES J. MCCOY, M.D., is Assistant Clinical Professor in the Department of Family Practice at Abraham Lincoln School of Medicine, University of Illinois, Chicago. He maintains a private practice in Dawners Grove and is affiliated with Hinsdale and Good Samaritan Hospital. Dr. McCoy is particularly interested in preventive medicine and family oriented psychotherapy.

JAMES M. SINACORE, B.A., is Research Coordinator at MacNeal Memorial Hospital in Berwyn. He graduated from the University of Illinois at Chicago Circle with college honors and received "Departmental Distinction" from the Department of Psychology.



The idea that man's health is affected by behavior and life style is not new. For example, a prize essay entitled *Tobacco Diseases: With a Remedy For the Habit* by Joel Shew, M.D., was published in London and New York City in 1854.¹ And decades earlier Benjamin Rush, in regards to the practice of smoking, was quoted¹ as saying:

"Who can see groups of boys, of six or eight years old in our streets, smoking cigars without anticipating a depression of our posterity, in health and character, as can scarcely be contemplated, even at this distance, without pain and horror?"

Modern medical approaches to health risk have advanced from the time of Benjamin Rush. For example, in 1968, Sadusk and Robbins² introduced a proposal for *Health Hazard Appraisal* as a method of outlining a preventive medicine

program in comprehensive health care. It was the contention of the authors that:

1. Every individual of a particular age, race, and sex, is faced with certain quantifiable health hazards.
2. Risk associated with many of the health hazards can be reduced by physician intervention (e.g. to prescribe medication) or a change in the patient's behaviors and/or life styles (e.g. stop smoking cigarettes, reduce alcohol intake, etc.)

Since its inception the Health Hazard Appraisal (HHA) has materialized into a prospective medical reality. Many centers across the nation,³ including our Family Practice Center at MacNeal Memorial Hospital, have incorporated the HHA in the ongoing comprehensive care of patients. In this two part series, the topics of the application of the HHA as data base information and preliminary research in trying to measure the HHA's clinical efficacy will be discussed.

Before reading on, it is suggested that the reader be perspicacious when interpreting the concept of "clinical efficacy." Although the term denotes "that which produces the desired effect" no longitudinal studies have been conducted to measure the death rates of experimental and control groups where specific physician interventions and patient life style changes, as prescribed by the HHA, have been manipulated. Indeed, this study is a precursor to such subsequent investigations.

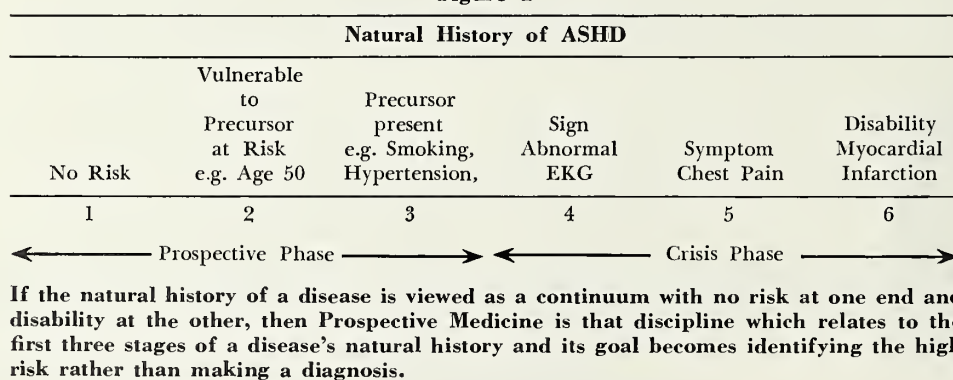
Health Hazard Appraisal As Data Base Information

The practice of Prospective Medicine as characterized by Robbins and Hall⁴ has become the concern of a great many physicians interested in comprehensive and continuous health care. The Health Hazard Appraisal Chart, a tool used in the practice of Prospective Medicine, has been incorporated into the data base of patients at the Family Practice Center of MacNeal Memorial Hospital (See Fig. 1)

If the natural history of a disease is viewed as a continuum with no risk at one end and disability at the other, then Prospective Medicine is that discipline which relates to the first three stages of a disease's natural history. Its goal becomes identifying the high risk in the "Prospective Phase" rather than making a diagnosis in the "Crisis Phase."

The data base at MacNeal Memorial Hospital is the result of an extensive information gathering process. This process occurs during the patient encounter designated as V₃ (Visit-Type 3). (V₁ is the crisis encounter or an encounter of relatively acute and limited duration. V₂ is the continuous encounter which involves the ongoing relationship of any patient with chronic identifiable problems, and V₃ is the comprehensive encounter where a complete physical examination with an assessment of a patient's health risk is performed.)

Figure 1



Though the topic of how to do and interpret an HHA has already been dealt with in the literature,* it is the aim of Part I of this treatise to specifically discuss the novel application of the HHA in terms of data base information.

*See the articles by Emory: "The Case for Doing Health Hazard Appraisals."

The data base consists of the following:

1. *Identifying Data*—age, race, sex, occupation, address
2. *Historical Data*—the RoCom** Health History Questionnaire

**The RoCom Health History Questionnaire is created and developed by Patient Care Systems, Inc., Darien, Conn. and is distributed by Roche Laboratories.

(Continued on page 85)

MEN OF MEDICINE, 1776-1976

Some Notes On Early Medical Practices In Illinois, Before 1800

BY DANIEL MALKOVICH
Editor, Outdoor Illinois Magazine

Anyone who has made more than a cursory examination of Illinois history is always brought up short by the realization that only a sketchy picture remains of early times and earlier people. So it is with the practice of medicine in Illinois. There are a number of sources from the written word in the period of French exploration, beginning in 1673, including military reports, the communications from French Roman Catholic missionaries to their superiors, called in total the *Jesuit Relations*, and from traders and *coureurs des bois*, or "woods runners," the sometimes well educated young Frenchmen who adapted themselves easily and readily to the life style of the Indians in the wilds of interior America.

Later, of course, the English who succeeded the French and finally the frontiersmen who appeared with the Revolutionary War left numerous letters and other communications, albeit the spelling was at times less than spectacularly successful.

But these admittedly sketchy documents are sufficient to reconstruct much of the thread of the era of European dominance in Illinois, those three hundred and some years since Louis Jolliet and Père Jacques Marquette and their small contingent broke out into the Rivière Jerome (Mississippi) from the Ouisconsin (Wisconsin) and shortly downstream saw the first of what is now Illinois.

But three hundred years is only three centuries. Human occupation of Illinois goes back at least 120 centuries—forty times longer than that of the European connection—and many scholars are beginning to shade previously held opinions and now consider it possible that

human occupation of Illinois may go back as long as 25,000 years, or even deeper into pre-history.

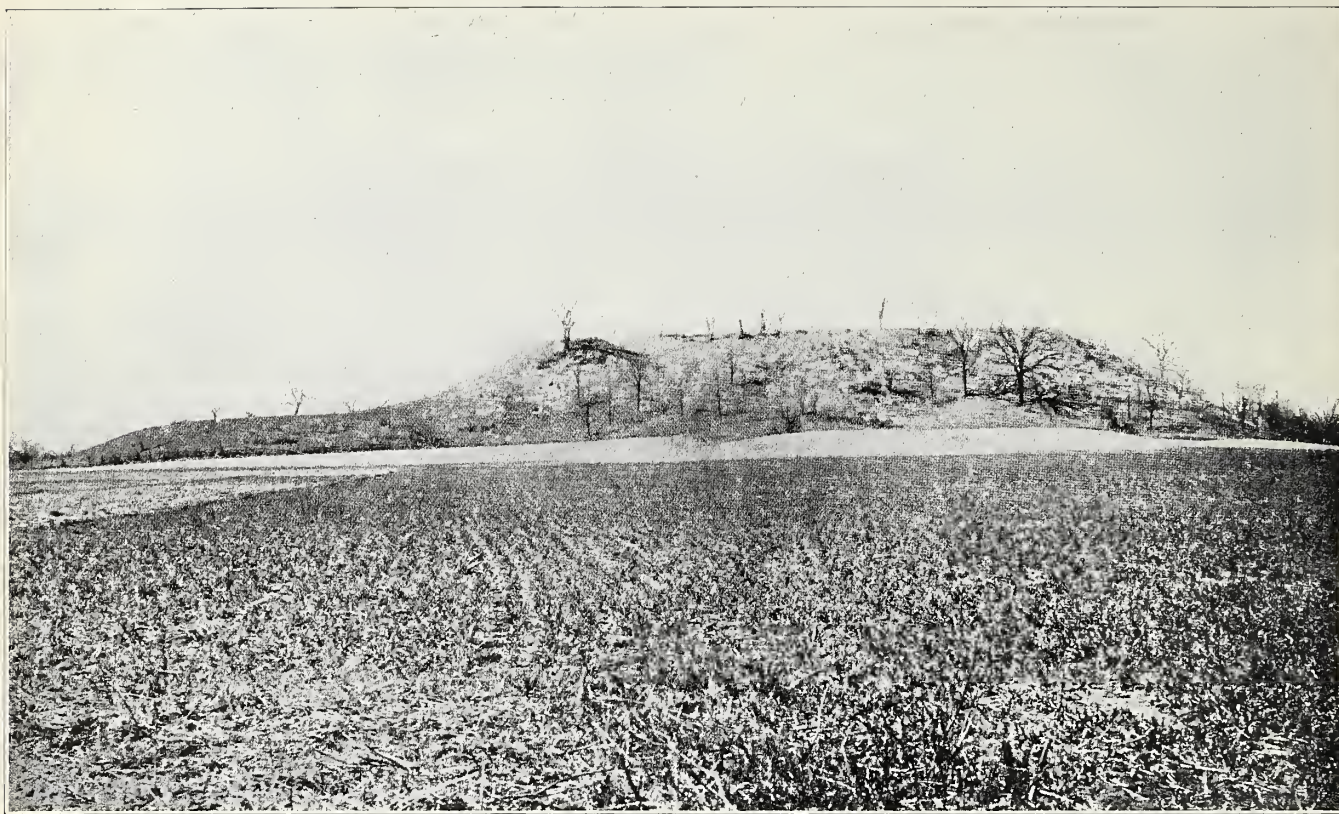
In any case, science is now at work on that aspect of Illinois's past, most notably at the world famous Koster dig in southwestern Illinois, under the aegis of the Northwestern University Department of Anthropology and its brilliant young archaeological wizard, Dr. Stuart Struever. In future years whole horizons will open that are not now contemplated, based on the imaginative interdisciplinary approach used by Struever.

But, let's take a brief look at medicine in Illinois prior to 1800:

Stone Age Man

One day a Stone Age Man became the first human to touch the ground of what is now called Illinois. Almost certainly he had few tools, only the most important and lightest, because he was a mover who took with him only those personal possessions he was able to carry, with the aid of his family members.

And while it is a near certainty that he traveled light, it is almost as certain that among his carefully chosen belongings were some that had proved to be useful herbal remedies accidentally discovered and passed along from family member to family member through many generations. Perhaps one was a bundle of burnet, used to staunch the occasional flow of blood from the many abrasions and punctures endemic to a nomadic life close to the elements. It might have included a decoction of the boiled fruit of the persimmon, used to cure diarrhea, or the per-



MONK'S MOUND, SITUATED IN THE "AMERICAN BOTTOM" IN MADISON COUNTY

Viewed from the southeast, showing in the left foreground the terrace or apron. This earthwork is the most impressive evidence of the ingenuity of the prehistoric races in America.

Reproduced through the courtesy of the Smithsonian Institution.

simmon's seeds, powdered and infused in boiling water to treat kidney stones.

Certainly early man in Illinois had a vast pharmacy in the wild, built painstakingly among family members and traded among clans and tribes and finally among entire Indian nations. By the time the classic artisans called the Hopewell appeared in the middle Woodland period, the art had developed to the point that selected members of the tribe were full time shamans with an impressive array of herbal cures, remedies and, perhaps not unlike modern practitioners, not above using a little sleight-of-hand or magic to help a patient think away a mental malady.

Man Settles in Towns

For some, the flowering of prehistoric civilization came with the Mississippian civilization. This advanced culture produced an explosion of energy and creativity, culminating in large sophisticated towns like that at Cahokia Mounds near Collinsville with an estimated population

of at least 25,000, and Kincaid Mounds on the Ohio River near Brookport, estimated at its height to have been a village of 7,000 persons.

Artifacts from the period tell those who study them that the culture was highly advanced in a number of ways. The sheer numbers who resided in the towns indicate the culture was capable of handling the massive task of providing food and materials necessary to sustain a permanent community.

This permanence at one location increased the amount of time available for pursuits other than those necessary for survival. Freed of the daily fight for food, Mississippian-era Indians were able to diversify their abilities and explore further afield than in primary subsistence needs. Among the pursuits were medicinal uses of native plants.

The Coming of White Men

The wonder is not that they had such a highly developed pharmacology. The wonder is that we may have lost many age-old herbal medicines

when the shamans' primal remedies could not cope with European-introduced diseases for which the Indians had no immunity nor the time to develop a medicinal line of defense.

How many medical "wizards" succumbed to these deadly introductions from abroad will never be known. As it is, with the Mississippian culture seeming to disintegrate at about the same time Hernando DeSoto reached the Mississippi valley in 1540, reasonable conjecture would lend credence to the theory of introduced disease as one of the causes of the de-flowering of the culture.

In any case, the Indians encountered by Jolliet and Marquette barely a century later were considerably lower on the cultural scale than were the Mississippians.

With Father Marquette comes the first mention of medicine in Illinois. When he returned in 1674 as he had promised the Kaskaskia Indians the previous year, he found on the south branch of the Chicago River (near where Damen Avenue now crosses the river) the huts of two French traders, which apparently had been built between 1671 and 1673. One of the traders is described as a surgeon.

Marquette, who became ill during this sojourn, said of them, "They did and said everything that could be expected of them." There is some thought that the surgeon also was an herb doctor, and history does not remember his name.

In 1682 Robert Cavelier, Sieur de la Salle was appointed governor of the Illinois Country. It was in that year that he navigated the length of the Mississippi River, and by December had caused to be constructed a fort atop Starved Rock on the Illinois River, christened Fort St. Louis. Prior to that time, the territory had been visited by numerous French traders and had its religious needs tended by a succession of Jesuit priests who followed Father Marquette. The Mission of the Immaculate Conception, founded by Marquette, was moved to Cahokia in 1699. Permanent settlement of the American Bottom in southern Illinois dates from this time. In rapid succession Kaskaskia, near the junction of the Kaskaskia and Mississippi Rivers, and other villages were founded. Within two decades the French Fort de Chartres became the seat of military government in the Mississippi valley.

There is record of an attempt by Father Mermet, who had established a missionary station



THE FIRST PROFESSIONAL CALL IN ILLINOIS

The surgeon visits Father Marquette in his rude camp upon the north bank of the west fork of the south branch of the Chicago River, January 16, 1675.

on the Ohio River shortly after 1700, to minister to the medical needs of an encampment of Mascouten Indians near what is now Cairo in 1711. A plague broke out against which he had no medical defense. The jugglers of the tribe attempted to halt its spread by sacrificing forty dogs, to placate the evil spirits which they credited with creating the problem. They tied the dogs to the tops of poles and with these banners marched forth through the village. Half of the tribe died and the remainder fled for safety.

In one of the *Jesuit Relations*, Father Gabriel Marest described Father Mermet's activities while attached to the Kaskaskia Mission in southern Illinois: "From prayers and instruction the missionaries proceeded to visit the sick and administer medicine, and their skill as physicians did more than all the rest to win confidence."

French Colonists in Illinois

In the first two decades of the eighteenth century, many French colonists moved into the settlements in the Illinois Country.

By 1719, Phillipe François de Renault established an extensive settlement near Fort de Chartres, at long extinct St. Phillipe, including 200 miners and laborers and a large number of black slaves from Santo Domingo. The previous year a Lieutenant Boisbriant had arrived at Kaskaskia with about a hundred soldiers to assume military command of the Illinois district.

The increased population brought better medical care, in the person of the surgeons attached to the post at Ft. de Chartres. Villages in Illinois, by 1725, included Cahokia (1699), Kaskas-

kia (1700), Ste. Anne (1720), Prairie du Rocher (1722 or later), and St. Phillipe. By the middle of the century, the French embarked upon an ambitious construction program at Ft. de Chartres and added other forts at Ft. Massac and Vincennes. It was from Ft. de Chartres that a company under the command of Jumonville traveled to the Great Meadows (in present day Pennsylvania) to avenge an attack by George Washington in 1754. They gave Washington his first military defeat.

Among the medical practitioners in Illinois during this period was Dr. Pierre Ignace Bardet de la Ferne, surgeon-major in the French service at Ft. de Chartres in 1763, the final year of French dominion in Illinois. His son-in-law, Dr. Auguste Conde, became post surgeon under St. Ange de Bellerive and upon the latter's death in 1774 there were enough assets to make a generous will. This was done with military precision, but one of the bills overlooked for payment was that of Dr. Conde. The bill for forty-five livres (about \$9.00), was among the bad debts filed as part of Dr. Conde's will when he died in 1776. That Dr. Conde had a large practice is evident from the fact that St. Ange's bill was but one of 233 overdue accounts listed on his books.

English Control in Illinois

With the coming of Capt. Phillip Starling in 1765, the English assumed control of Illinois, which had been one of the concessions by the French in the Treaty of Ghent in 1763.

There are numerous records of doctors in Illinois during the British regime. One such account



CAHOKIA, ESTABLISHED AS A MISSION BY THE PRIESTS, ST. COSME IN 1699, AND PINET IN 1700

Here was the home of Madame Beaulieu, whose appointment as "Director-General of Morals and Medical Matters" made her the first commissioner of health of the territory of Illinois.

From Wild's "Valley of the Mississippi," 1841.

is the record of payment by The Crown of a bill tendered by Dr. William Annesley for medical services.

"The Crown, To Dr. William Annesley, Dr. for Attendance and Medicines administered to the Indians at this place (Ft. de Chartres) from the 25th of Sept. 1766—to this 24th March, 1767, Inclusive, is 181 Days: @ 5/Pr. Day. £45.5., Pensylva. Curre (MS burned) at five livres to the Dollar."

In the same year Dr. Annesley acknowledges receipt of the sum of forty-five pounds five shillings from Edward Cole. That this was the average pay for medical men in the good old days of dominion is apparent from the following schedule:

"Indian Department Salaries at Forts on Frontier

A Commissary200 Sterling
A Gunsmith100 Sterling
An Interpreter 80 Sterling
A doctor 80 Sterling

During the British regime the Indians complained that smallpox was transmitted to them by the English. And when Colonel Wilkin assumed command at Ft. de Chartres in 1768, he found a garrison in good health which was suddenly stricken with pestilence.

By October, George Morgan of the Pennsylvania firm of Baynton, Wharton and Morgan, factors who held the trading concession on the frontier, wrote his partners, "Every officer and private is violently ill with fever and distressed because of no attention."

By Sept. 20 the soldiers were attacked at the rate of twenty per day and in one week only 19 were capable of duty.

"The gates of the fort are locked, with no sign of life but the guards. The groans and cries of the sick is the only sound heard. The surgeon of the regiment held it out longest, but was during the height of their illness confined to his bed."

"Dr. (John) Connolly was called and has been of great service and has great skill. He still continues at the fort, as the surgeon is not yet recovered, hence the men want assistance."

Later Morgan wrote:

"Fifty men are now fit for duty and the disorder had greatly abated. All are fairly recovered except Captain Stewart, Lieut. Turner and Patterson, the three who died after a few days of illness. About thirty men and a number of women were laid in their graves. Mr. Rumsey has had frequent violent

attacks, Brown has had recourse to his bed almost every other day, and Hollingshead has felt the weight of the affliction."

And again,

"The febrifuge you so warmly recommend will do very well from this time till May next, when each of us expect to be attacked in turn."

Buttrick, who acted as adjutant, speaks of the mortality:

"All of the officers of five companies were so ill that only a corporal and six men were capable of guarding the fort in the heart of the enemies' country and the disorder still rages; and we had every reason to believe that it is contagious, for no one escaped. Three officers, twenty-five men, twelve women, and fifteen children were sent to their graves September 29, and many more are in a dangerous way, tho I am in hopes the cold weather will soon help us."

On December 5, 1769, Colonel Wilkins describes what he thinks is the cause of the unhealthy state of the region: "It is surrounded by innumerable, extensive and stagnant lakes and pools." The surrounding country was low and marshy, an unhappy circumstance which led him to question the reason the French selected the site for a fort.

Murray, an agent for the firm of Bernard and M. Gratz, wrote in 1769 from Kaskaskia that for the sixth time he had the "accursed fever" so that he could barely write. But among his entries were such medicinal items to a Dr. Thomason as "Cod or Liver Oil" and "Ginseng", evidently for the remedy of an illness.

That the term "conflict of interest" came early to Illinois is evident in reading personal correspondence of traders and others who did business with the British colonial officers in the pre-Revolutionary War period. When Dr. Thomason, who was in close proximity to Fort de Chartres, was not employed in the emergency when the fort surgeon (probably Dr. Annesley) became ill is a case in point. Dr. John Connolly, then at Fort Pitt, was sent for, since he was close to the administration officially and was a nephew of Colonel George Croghan, Indian superintendent. Later, Connolly became Lord Dunmore's agent in 1774 and was accused of precipitating the Indian War of that year. He aligned himself with the British during the Revolution. Skinner, in *Pioneers of the Old Southwest*, indicates the doctor was ever ready to participate in the politics of the moment, but does not indicate if it interfered with his medical practice: "He was inter-

ested in land on his own behalf and was by no means the only man at that time who was ready to commit outrages upon the Indians in order to obtain it."

Americans Finally Arrive

The British lost the Illinois Country with the capture of Kaskaskia by Col. George Rogers Clark and his American contingent in 1778, aided in no small part by Father Gilbault. In turn, Clark's capture of Vincennes was greatly aided by Gilbault's friend, a Dr. Laffont, who was stationed among the French habitants near Ft. Sackville, at Vincennes. Following Clark's report of the enterprise, Gov. Patrick Henry of Virginia wrote Clark, "I beg you will present my compliments to Mr. (Sic) Gibault and Dr. Laffont and thank them for me for their good services to the State."

That Dr. Laffont was also lucky can be seen when he was rewarded \$3,000 in payment for his services by the young state, unlike many including Clark who later suffered the usual ingratitude of politics and, at a much later date when he had grown old, was said to have broken over his knee a ceremonial sword given him "by the grateful state."

Dr. Laffont later moved to Ste. Genevieve, Missouri, along with many from the French settlements in Illinois, and died in 1799 at the age of 48.

From a report of the Western Commissioners, a Dr. Hart was attached to Gen. George Rogers Clark's troop of the Illinois Regiment in 1781-82:

"It appears to the commissioners that there is due to Dr. George Hart the sum of Forty-three pounds four shillings for his services as surgeon. The commissioners are of the opinion that charge against Bennum and Brown in the Dr. Hart's was done during the time that the claimant was paid as surgeon to the troops of Gen. Clark then Colo. at the Falls (of the Ohio) and therefore reject it."

At about the same time, in a letter written to Gen. Clark from Legras, the writer lamented the loss of fifty-four persons at Kaskaskia and Ste. Genevieve, including the loss of several prominent inhabitants, but did not mention the nature of the epidemic.

And further pointing to the difficulty of service to the young republic was this communication from Kaskaskia on Jan. 1, 1782, addressed to the "State of the Treasury" at Richmond, Va.:

"John Conant, Surgeon to General Clark's Army, having obtained from 'the Assembly' an order for a Warrant for one thousand dolls. specie, for the purchase of medicines

to be delivered at the Falls of the Ohio in March next, applied at the Treasury, but was informed there was no money on hand—he therefore now begs that instructions be given to the 'Commissaries of Stores' to sell flour sufficient to make up that sum, otherwise the wishes of the Assembly cannot be carried out. . . ."

Civilian Settlers Come to Illinois

The first "American" civilian physician attracted to the Illinois settlements came in 1782. The doctor, Israel Dodge, may have been influenced in selection of the location for his practice since his notorious brother, John Dodge, was currently holding sway as a much unloved despot at Kaskaskia during the period of "stasis", when the American troops withdrew in 1783 until Gen. Harmar restored order in 1787.

In 1789, Gen. Harmar received a letter from Major Hamtramck in charge of Ft. Knox, at Vincennes, that the garrison was very sickly and disease had caused more havoc than the savages, who seemed disposed to be peaceful. There were forty-nine men ill with intermittent fever, according to Hamtramck, and not an ounce of "Bark" to combat it. He cited Dr. Elliot's (the army surgeon) complaint that the bark received was of bad quality.

In proof of his assertion, he mentions that from personal knowledge eight or ten grains of tartar emetic were employed, "when two or three ought to perform the operation; and I am well persuaded that every man who composes this garrison can take a pound of Bark during the sickly season."

While this does not testify to their valor in battle, it does seem to indicate that the doctors believed in heroic doses.

Conclusion

In order to bring to a close this brief introduction to early medical practice in Illinois, consider the penalties imposed by the Court of Quarter Sessions of Cahokia on July 2, 1799, for those who would bring Small Pox across the river from the Spanish territory:

"Ordered in order to keep off the plague of the Small Pox that now rages on the Spanish side, that anyone crossing (the river) to be fined \$6.00 for the first offense, \$12.00 and ten days' imprisonment for the second offense and remain in prison till he or they shall pay the final fine. Goods brought from the Spanish side will be confiscated."

By this communication it was apparent that the legal profession, too, had arrived. ◀

Something Curious in the Medical Line

BY RONALD D. GREENWOOD, M.D.

Medical writing in America began long before 1776. Thomas Thacher (1620-1678) of Boston and Weymouth authored the first medical publication in America in 1677-78, nearly a hundred years before the beginning of the United States. His paper, "A Brief Rule To Guide The Common People Of New England How To Order Themselves And Theirs In The Small Pocks Or Measels", was reprinted in pamphlet form in 1702, 1771 and 1772.¹ Epidemic diseases, especially smallpox, occupied a prominent place in early American medical literature. The first medical school, later to become the University of Pennsylvania, was founded in 1765, also prior to the formation of the United States. Most medical education in the colonies was gained in England.

Especially in these early years, medical practices and writings were slow to be transmitted and accepted. Although Dr. Edward Jenner (1749-1823) proved a cow-pox inoculation would protect a person from smallpox in 1796 (he had inoculated his one year old son seven years before with "swine-pox" but could obtain no proof of protection from smallpox), it was not until July, 1800, that Benjamin Waterhouse (1754-1846) first inoculated a person in this country.² It was Waterhouse who in 1799 had

written the first notice in America of Jenner's discovery under the title "Something curious in the medical line." It was most often personal letters, pamphlets and word of mouth that spread the medical awareness of the cow-pox vaccine and also of other discoveries.

Although the American physician Hezekiah Beardsley (1748-1790) described a case of pyloric stenosis in 1788 noted as a "case of scirrus in the pylorus of an infant" in *Cases and Observations* by the Medical Society of New Haven, it was not until 125 years later that it was noted and reprinted.¹ This scenario was frequent in early American medicine. In the medical writings available providing a view of the 200 years of our country's history are many noteworthy recorded events. This medical literature reflects the growth and development of the United States; many items of medical curiosity have been significant contributions.

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Medicine in the Early 1900's

I graduated from Rush Medical College in 1915, and I still remember rather vividly the old Rush buildings, the old Presbyterian Hospital where we also had classes, and a number of our very famous medical staff.

The buildings were really old, especially Rush, but the faculty was so marvelous that we paid little attention to the structures. The main assembly room was used for special occasions, such as lectures from some of the most famous instructors. This was a large room with the speaker in a rather small space and the seats rising rapidly to the top.

Dr. Frank Billings lectured here on his favorite topic, "foci of infections." That speech of his

has long lingered in my memory. For many of my patients I have been able to remove symptoms simply by removing an infected tooth or diseased tonsils. By comparison, however, this theory is not as popular today as it was in Frank Billings' time. Dr. Billings was, I might add, a large, heavy-set man, very distinguished, and an excellent speaker.

Dr. Bertram Sippy was renowned all over the world for the Sippy treatment of peptic ulcers and his milk and cream diet. He also was a heavy-set, handsome man and a fine speaker.

Dr. Herrick was a slender man, not nearly as distinguished in appearance as were Doctors Billings and Sippy. Yet he was a great cardiologist and is known to this day as the probable discov-

er of coronary heart disease and its relation to angina pectoris. One episode was never forgotten by his students, including me.

Herrick was giving us a talk one day about angina, and mentioned that at times a patient with angina might have a sudden pain in the heart region and die quickly. Then he brought in a man on a stretcher and began to tap the man's chest, including his heart. Suddenly, the man put his hand to his heart and fell back on the stretcher and died almost instantly. Of course, we students were shocked, but none of us ever forgot this unintentional demonstration.

Daddy Haines (Materia Medica) was a fine looking, slender, white-haired man, a man who looked so gentle that one felt he never could even kill a fly. His favorite expression, which he probably repeated to each of his classes, was this: "When I tell a class something, one third of the class understands what I am saying, one third understands just the opposite, and the other third doesn't know what I'm talking about."

We had other good teachers at both the University of Chicago and at Rush, but two at Chicago were outstanding, in my opinion. They were Professors Julius Stiegleitz (Chemistry) and H. G. Wells. I believe Wells was one of the first to lecture in the field of immunology.

After graduation from Rush I spent 18 months as an intern at Cook County Hospital (1915-1917). Internship there was competitive and highly prized; in fact, I studied for that for about a year before the long written examination. Though we received only room, board and laundry, I'm sure that every male or female intern in those days will swear that his training at Cook County for 18 months was the best of all.

As a junior intern I had three months of medicine and three months of surgery under the watchful eye of my wonderful senior, Dr. Summer Koch. Then I had six one month services as a middler intern (Psychiatry, Tuberculosis, Contagious Diseases, Obstetrics, Pediatrics and Examining Room). Following these there remained (as senior intern) three more months of medicine plus three more months in surgery. During this surgical period I was allowed to do about 25 herniotomies, about 25 appendectomies, plus caring for all sorts of fractures. (In those days fractures were a part of surgery, not orthopedics.)

Then to the army in World War I, with a year in the trenches with the British Army and then

a year with the American Army. My chief recollection, besides three battles, were the severe epidemics of influenza in 1918 and 1919 with many deaths; and two episodes of cerebrospinal meningitis. In the 1918 epidemic of meningitis we used serum from the Pasteur Institute of Paris. This we injected intra-spinally with almost 100% rapid cure; in the 1919 epidemic we had another 25 patients, but the Pasteur serum was not available. We used anti-meningitis serum from New York City, but the results were miserable.

Then came private practice, continuous to the present time. In my first eight years I did general practice on the south side, with fees averaging \$3.00 in the office and \$5.00 for house calls. This practice was not very lucrative but wonderful in experience. I was much closer to the patients and their medical, social, and psychiatric experiences than I am now as a specialist in allergy.

Comparing those old days with those of the present, we old timers are convinced that we were far ahead of the younger doctors of today in both experience and diagnostic ability. We relied chiefly on the established techniques of the history and physical examination, including inspection, palpation, percussion and auscultation, and our average of correct diagnoses, I believe, was usually very high. In those days we did have some help from the laboratory.

Today our younger medical students, interns and residents are much too dependent on laboratory findings. I believe they should force themselves to take better histories and do better physical examinations, yet not neglect the old and the new information from the laboratory.

Nevertheless, to us old timers the rapid advances of specialized procedures in cardiology and other specialties are absolutely amazing. We sit back and applaud the younger physicians who have become experts in these procedures.

The public has been kept informed of advances in various aspects of medicine by the growing use of television. Some of these programs have been very good and very instructive. Others have not, and have unjustly hurt the practice of medicine.

The vast majority of doctors today are very adequate and certainly better than the average caliber 50-60 years ago. We are now in the Golden Days of Medicine; we will be even better in the future.

Leon Unger, M.D.

Intraabdominal and Pelvic Surgery Without Visible Scars

BY T. SHELLY ASHBELL, M.D./CHICAGO

Women, and occasionally men, have often been distressed by the presence of abdominal scars. They consider visible scars ugly, especially when they are wide, hypertrophied, depressed or deformed. It is not uncommon for plastic surgeons to be called on to revise such scars, to make them finer and less noticeable, or to break them up with z-plasties. At times, plastic surgeons are even asked to be present at the initial surgery in order to close the skin and achieve a more delicate scar.

The use of a transverse suprapubic abdominoplasty incision and a dermolipectomy-type undermining and elevation of the abdominal panniculus affords surgical access to *all* intraabdominal and pelvic structures, including the biliary tree, the upper gastrointestinal tract, and even the liver and diaphragm. It results in a scar which is concealed within the "bikini area" (Fig. 1). Baker et al¹ have conceived a similar, though lesser, idea independently. They have combined abdominal dermolipectomy for a flabby abdominal wall with elective lower abdominal and pelvic surgery. The well known Pfannenstiel incision² was designed to produce a suprapubic hairline scar for some operations on the female pelvic organs or for the removal of an interval appendix. However, exposure is relatively crowded and this incision has not been recommended for extensive surgery.³

Ideally these operations are performed by a team combining a plastic surgeon with a general surgeon or gynecologist. Either the transverse incision of Pitanguy^{4,5} or the W-incision of Regnault⁶ can be used. When undermining the abdominal flap the thin layer of areolar tissue covering the aponeurosis should be preserved. The umbilicus is circumcised and the undermined flap is covered with moist pads and retracted superiorly. Small stab wounds for the passage of drains, T-tubes, etc., are placed lateral

to the anterior axillary line to make the resulting scar inconspicuous. When the intraabdominal or pelvic operation is completed, any diastasis recti, commonly found after childbirth or with a flabby abdominal wall, is approximated by plication of the aponeurosis.

When lax abdominal skin is present, or when this approach is used for a cesarean section, excess skin and fat are resected. Following this excision it may be necessary to flex the hips at an angle of 90° to 120° to obtain tension-free wound

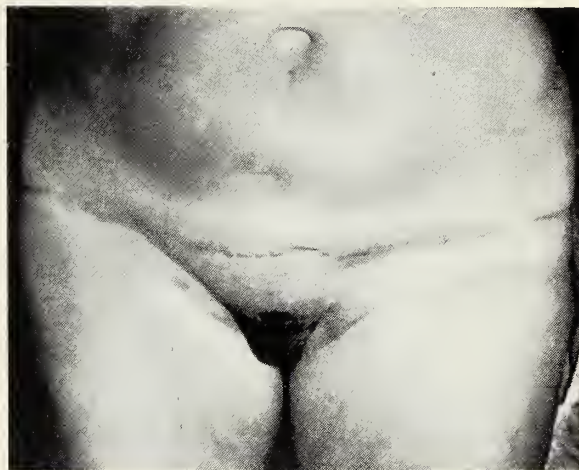


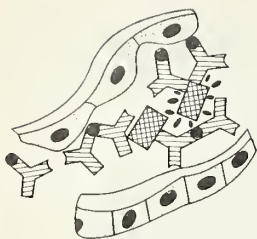
Figure 1. Two months following a cholecystectomy through an abdominoplasty incision. The scar is hidden within the "bikini area" and the drain scar is not visible. No dermolipectomy had been performed.

edge approximation.^{4,6} This position is maintained for 48 hours postoperatively. Drains are always used. Depending on the method chosen, the plaster of Paris shield and sand bag of Pitanguy^{4,5} or the foam and elastic tape dressing of Regnault⁶ are used. Pre- or intra-operative nasogastric intubation is essential. It prevents postoperative distension and vomiting, which may cause wound disruption, and should be continued until normal intestinal motility is regained.

(Continued on page 62)



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Seminars In Immunopathology and Oncology

RICHARD J. ABLIN, PH.D., CONTRIBUTING EDITOR

Immunologic Disorders in Children

BY ROBERTO R. KRETSCHMER, M.D., PRUDENCE STEWARDSON, M.D., AND
SAMUEL P. GOTOFF, M.D./CHICAGO

Bruton's discovery of agammaglobulinemia in 1951¹ initiated a series of observations of patients with immunodeficiency diseases (ID) which has steadily expanded over the last two decades. Although rare, these conditions have played an important role in the advancement of our knowledge of the basic mechanisms of immunologic organization.² The study of disorders of adaptive immunity has demonstrated the importance of these specific mechanisms operating in concert with the more ancestral and non-specific responses of inflammation and phagocytosis. Indeed, the significance of these non-specific responses is illustrated by patients with defects in complement and phagocytosis which are frequently included in the broad scope of ID.³⁻⁶ However, the present review will focus on primary ID and omit a discussion on non-specific defense mechanisms. Furthermore, we will only mention in passing the secondary ID which are much more common, as manifested worldwide in the millions of malnourished individuals,⁷ patients with lepromatous lepra⁸ and the growing numbers of patients receiving immunosuppressive therapy for malignancy⁹ and collagen-vascular diseases.^{10,11}

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The primary ID, that rare experiment of nature, has contributed the most to our knowledge of the organization and compartmentalization of the immune response¹² and its well orchestrated relations to other defense mechanisms. A clear understanding of these relations is mandatory to comprehend the complex biologic systems that are put to work when an individual confronts microbial invasion and possibly the emergence of neoplastic mutant cells.¹³ It also serves as a conceptual framework for the understanding of the secondary or acquired forms of ID.¹⁴ Finally, we will concentrate on the development of the cell systems which constitute the humoral and cellular immune responses, and hope to provide herewith an annotated itinerary through this difficult but fascinating territory. Excellent basic¹⁵⁻¹⁷ and clinical^{14,18-20} reviews of ID have recently appeared in the literature. The reader is referred to them for guidance in the evaluation and treatment of suspected host defense impairment.

Types of Responses

The immune system can be divided into two main types of responses: cell mediated immunity

(CMI) and humoral antibody mediated immunity (AMI). Both depend upon the structural and functional integrity of a population of cells, which originate in the bone marrow.²¹ Maturation and preservation of those cells responsible for CMI involves passage through—or receipt of distant signals from—the thymus gland, hence their name: “T” cells or “T” lymphocytes.^{22,23} Other lymphocytes are independent of the thymus in their maturation and maintenance, and are primarily involved in antibody (immunoglobulin) synthesis. This second lymphoid population comprises the “B” cell or “B” lymphocyte system which in avian species is influenced by the Bursa of Fabricius²⁴ in a way similar to that played by the thymus in CMI. The equivalent of the bursa in mammals remains elusive, although the gut-associated lymphoid tissue (GALT)²⁵ and the bone marrow²⁶ have been implicated.

Cell Markers

The peripheral compartmentalization of “T” and “B” lymphocytes was one of the first timely concepts to emerge from the study of ID.²⁷ Lymphocytes involved in CMI are predominantly found in the deep cortical or subcortical areas of lymph nodes and the white splenic pulp, whereas cells involved in antibody production reside in the germinal centers of lymph nodes and the red splenic pulp.²⁸ This remarkable dichotomy is neatly illustrated by the paucity of lymphocytes in the thymic dependent areas in DiGeorge’s syndrome (congenital hypoplasia of the thymus) in which CMI is defective but antibody production is brisk and germinal centers are normal.^{29,30} The “mirror image” of DiGeorge’s syndrome is seen in children with sex-linked agammaglobulinemia, where germinal centers are lacking and antibody production is absent, but CMI and deep cortical lymphocytes are intact.³¹

The existence of individually definable lymphocytes as belonging either to the “T” or the “B” cell series was initially only inferred, since under the light and electron microscope all small lymphocytes look alike.³² Circumstantial evidence for the existence of clearly distinguishable populations of lymphocytes was provided by the observation of normal or nearly normal numbers of circulating lymphocytes in both DiGeorge’s syndrome and sex-linked agammaglobulinemia.³⁰ This was in contrast with the persistent lymphopenia almost invariably observed in cases of severe combined immunodeficiency

(SCID), a condition in which both CMI and AMI are conspicuously absent.³³

A breakthrough in this area of inquiry came in the late 1960’s, when adequate technology for cell fractionation and differentiation of lymphocyte populations was developed.³⁴ It became apparent that the ubiquitous lymphocyte could be classified into at least two distinct populations by virtue of their cell surface properties, markers or receptors. “T” lymphocytes were discovered to form rosettes with untreated sheep erythrocytes,³⁵ whereas “B” lymphocytes do not. On the other hand, “B” lymphocytes bear relatively large concentrations of immunoglobulins on their surface, which permits their identification by direct or indirect immunofluorescence.³⁶ “T” lymphocytes lack this marker, although trace amounts of monomeric IgM can be found on their surface when very sensitive methods are used.³⁷ These distinctive features of “T” and “B” lymphocytes are the most frequently used methods for their identification.

Research in this area has progressed rapidly. Several additional features which further differentiate “T” and “B” lymphocytes have been reviewed recently by an *ad hoc* WHO committee,³⁸ and are shown, with some modifications, in Table I. Since the monocytes and macrophages display similar surface markers, proper identification of them is warranted, lest spurious “T” and “B” cell counts be obtained.³⁸ Normally about 60 to 70% of the circulating lymphocytes are “T” cells and 20 to 30% belong to the “B” cell series. It is beyond the scope of this review to go any further into this subject. Suffice it to say that these cell markers probably not only identify their breed, but have a functional significance as well.

Importance of Interactions

Evidence of mutual relationships and cooperation between these two cell systems is accumulating rapidly.³⁹ While there was an initial tendency to consider these cell systems separately, emphasis now is placed on their interactions.⁴⁰ “T” cells are known to modulate immune responses with stimulatory (helper “T”) and inhibitory (suppressor “T”) effects upon “B” cells.^{41,42} A reciprocal function of “B” cells toward “T” cells may also be inferred, but supporting data remains scanty.⁴³

With the rapid expansion in technology and the development of new concepts, it is not surprising that the WHO *ad hoc* committee for primary ID has had to update its classification

Table I
Markers and Functional Features of
Human Peripheral Mononuclear Cells

	B Cells	T Cells	Monocytes
Surface membrane immunoglobulin	+	—	(+) ^a
Sheep rbc (E-rosettes)	—	+	—
Sheep-rbc + anti-sheep rbc-IgM + complement (C3) (EAC rosettes)	+	—	+
Ox-rbc + rabbit anti-ox rbc-IgG (EAox rosettes)	+	—	+
Human rbc + human incomplete anti-Rh-IgG (EAhu rosettes)	—	—	+
Aggregated human IgG	+	—	+
Epstein-Barr virus receptor	+	—	—
B cell antigen	+	—	—
T cell antigen	—	+	—
Scanning electromicroscope appearance	"hairy"	"bald"	./.
Phytohemagglutinin response (in vitro)	—	+	—
Pokweed antigen response (low dose) (in vitro)	+	—	—
Pokweed antigen response (high dose) (in vitro)	+	+	—
Mixed lymphocyte culture (in vitro)	—	+	—
Phagocytosis/glass adherence	—	—	+
Graft vs. host reaction	—	+	—

^acytophylic antibody

continuously in order to keep pace with this rapidly growing body of knowledge.^{44,45} The latest proposed classification is shown in Table II. In spite of some isolated criticism,⁴⁶ it provides valuable guidelines in this field. In the ab-

sence of an etiological-histo-pathological concept for these diseases,² a classification based on the functional and hereditary patterns is operationally correct and seems to be almost unanimously accepted.

Table II
Primary Immunodeficiency Disorders (WHO Committee)

Type	Suggested Cellular Defect		Inheritance			
	B Cells		T Cells	X-Linked	Autosomal Recessive	Other [‡]
	Circulating Ig-Bearing B-Lymphocytes					
	(a) *	(b) **				
X-linked agammaglobulinemia	X	(X) †		X		
Thymic hypoplasia (DiGeorge)			X			X
Severe combined immunodeficiency	X	X	X	X	X	X
with dystosis	X	?	X		X	
with ADA deficiency	X		X		X	
with generalized hematopoietic hypoplasia	X		X		X	
Selective Ig deficiency						
IgA deficiency	?	X	(X)			X
Others		?				X
X-linked immunodeficiencies						
increased IgM		X		X		
Immunodeficiency with ataxiatelangiectasia		X	X		X	
Immunodeficiency with thrombocytopaenia and eczema (Wiskott Aldrich syndrome)			X	X		
Immunodeficiency with thymoma	X		X			X
Immunodeficiency with normal or hypergammaglobulinemia	X	X	(X)			X
Transient hypogammaglobulinemia of infancy		X				X
Common variable immunodeficiencies (largely unclassified and very frequent)	X	X	(X)		(X)	X

*Absent or very low

**Easily detectable or increased

†Some cases with circulating B-lymphocytes without detectable surface Ig have been found

‡Implies multifactorial or unknown genetic basis or no genetic basis

X Common

(X) Low frequency

?Uncertain

Improbability of Gene Defect

In spite of the clear cut hereditary patterns of many ID syndromes, none appears to result from the mutation of a structural gene.² It is possible to postulate a single gene defect for agammaglobulinemia, but the extraordinary diversity of the structure of immunoglobulins⁴⁷ calls for a multiple gene determination of each family of antibodies, even conceding some degree of poly-functionality.⁴⁸ Consequently, a structural gene defect is an improbable explanation for primary ID.

This statement remains essentially unchallenged, despite the demonstration of adenosine-deaminase (ADA) deficiency, an autosomal recessive trait, in about half the patients with SCID,⁴⁹ and the recent description of a case of defective CMI accompanied by neucleoside-phosphorylase (NP) deficiency.⁵⁰ The enzymes ADA and NP participate in purine metabolic pathways by catalyzing the conversion of adenosine to inosine and thence to hypoxanthine. They could represent key steps in early stages of lymphocyte differentiation. Presumably, a structural gene defect (i.e. that codifying for ADA and/or NP) could underlie some primary ID. In a study of 7000 people in Denmark, ADA deficiency was seen only twice. Both cases had SCID.⁸ The implications of the findings have recently been examined in ID patients receiving bone-marrow transplantation for immunologic reconstitution.⁵¹ A !Kung boy from the Kalahari desert in Africa has already been discovered as an exception to this relationship. Deficient in ADA, he has normal CMI and AMI.⁵²

Alternative Theory

An alternative theory postulates that primary ID results from defects in the process of maturation and differentiation of the cell lines involved in the immune response.⁵³ The bulk of the available ontogenic information appears to support this theory.⁵⁴ Accordingly, these deficiencies can be considered specific errors in the pathways of cell differentiation from the primordial stem cell to the fully committed "T" or "B" cell.⁵⁵ As the sequence is unravelled, a scheme begins to emerge which will permit the prediction of specific disease states. Figure 1 summarizes our present state of knowledge of the ontogeny and differentiation of the cells that ultimately give rise to mature "T" and "B" cells. This scheme is based largely on the work of Cooper⁴⁰ and Paul,⁵⁶ and has the advantage of incorporating new facts such as the restricted monomeric IgM

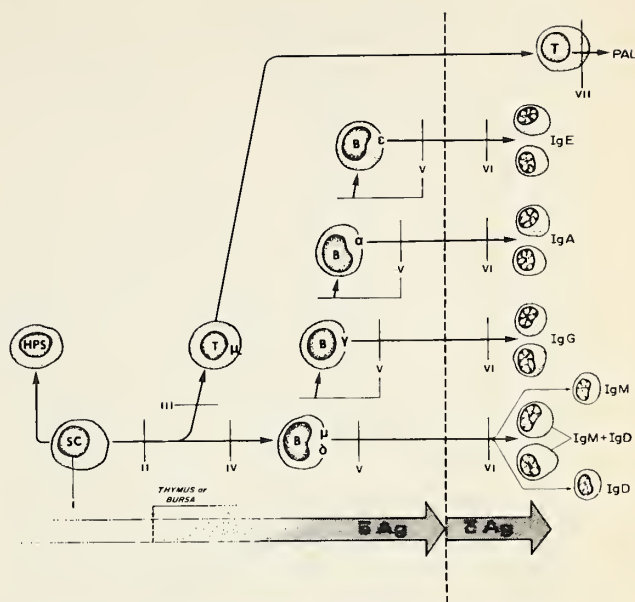


Figure 1. Ontogeny of "T" and "B" lymphocytes

SC = Stem cell
HPS = Hematopoietic system
Ag = Antigen
PAL = Products of activated lymphocytes (lymphokines)

Numbers I-VII refer to postulated sites involved in primary ID
See text for explanation.

expression on "T" cells,³⁷ the primordial but full expression of IgM and possibly IgD markers on the precursor "B" cells⁵⁷ and the simultaneous expression of IgM and IgD in one progeny of "B" lymphocytes.⁵⁸

The stem cell is pluripotent in that it provides the reserve for both the hematopoietic and the immune systems.⁵⁹ "T" lymphocytes appear as early as 10 weeks of gestation in the thymus and by 15 weeks they can be found in the spleen.⁶⁰ They are followed shortly thereafter (13-14 weeks) by the precursors of all "B" lymphocytes, bearing at this stage only IgM (and possibly IgD) on their surface.⁶¹ Soon, lymphocytes of all major classes appear, although they still lack the capacity to secrete immunoglobulins.⁶² The relative isolation of the fetus from antigenic exposure suggests that these initial developmental steps are largely antigen-independent. In fact, a modulation by the thymus ("T" cells) and the Bursa-equivalent ("B" cells) has been proposed.³⁴ In some animal species, the "switch" from the primordial "B"-IgM (and IgD) cell to the final "B" (IgM+IgD, IgM, IgD, IgA, IgG or IgE) cell seems to be under some antigenic influence, but this step remains undefined in the human species.⁶³ In any event, it is worth stressing that the precursors of "T" and

"B" cells appear quite early in intrauterine life. These early cells are endowed with surface markers, although the "B" cells are still largely indolent. The "T" cells, however, appear functional, even at this early stage of development.⁶⁴ On rare occasions, this "B" cell idleness is disturbed *in utero* by infections which stimulate a marked IgM antibody response.⁶⁵

The next step in the maturation of adaptive immunity is related to the gradual introduction of antigen from the environment, leading to the expansion of each of the chosen clones and a gradual, but not necessarily synchronous, enlargement of the lymphoid cell mass in the body. The full expression of the "B" system in the normal human has been estimated as a million different antibody specificities.⁶⁶ This diversity is largely derived from 100 to several thousand genes coding the variable portion of the immunoglobulin molecule⁶⁷ in each pluripotential "B" cell of each major immunoglobulin class. Small wonder that the maturation arrest theory for primary ID is favored, in contrast to the structural gene defect theory.

Classical Primary ID

The classic primary ID may now be incorporated into this scheme (Fig. 1). Thus, a defect in the stem cell (*I*) will result in combined hematopoietic and immune system defects.⁶⁸ Involvement of the primitive lymphoid cell but sparing the hematopoietic pathway (*II*) will lead to SCID.⁴⁵ Developmental failure at the next steps in the scheme will give rise to the "mirror image" diseases:² DiGeorge's syndrome (*III*)^{29,30} or x-linked agammaglobulinemia (*IV*).¹⁵ Inability to generate any particular class of the "B"-cell progeny will lead to isolated or selective deficiencies of one or more immunoglobulin classes (*V*), a state formerly called "dysgammaglobulinemia."^{15,69} Finally, feeble expansion of specific clones could result in deficient or inappropriate antibody production against some antigen(s) (*VI*). The faulty response of patients with Wiskott-Aldrich Syndrome to carbohydrate antigens could be at this level.⁷⁰ Incidentally, this concept of inadequate antibody response is also useful when trying to explain immunocomplex diseases.⁷¹

Last Stage of Maturation

The last stage of maturation, that triggered by exposure of the immune system to antigens, deserves further elaboration. This is particularly true in light of some recent observations about common variable immunodeficiency (CVID),^{72,73} which are more adequately explained as repre-

senting disturbances of several of the complex phenomena that follow exposure to antigen in an otherwise ontogenetically mature immune response. Again, information is plentiful regarding "B" cell defects (such as CVID),⁷⁴ whereas parallels in the "T" cell system are scarce.

The full expression of immunity requires the proper reception and orchestration of several signals by the cell at a given stage of the response⁴⁰ (Fig. 2). Thus, the initial antigenic signal triggers a response which may then be modulated by a second (helper "T" cell) and a third signal (suppressor "T" cell). Having passed these stages, the "B"-cell increases its synthesis of heavy (H) and light (L) chains and proceeds to their assembly and, in some cases, polymerization ("J" chains in IgM and some IgA molecules).⁷⁵ Next, carbohydrate is added to the assembled molecules of immunoglobulins, supposedly to facilitate their secretion.⁷⁶ Experimental evidence for each of these steps is scattered throughout the immunological literature of the last decade.⁴⁷ This admittedly simplified model allows the inclusion of some unusual primary ID formerly wanting in classification (CVID, Wiskott-Aldrich Syndrome (WAS), Exomphalos-Macroglossia-Gigantism (EMG), etc.), as well as other immunological defects marginal-

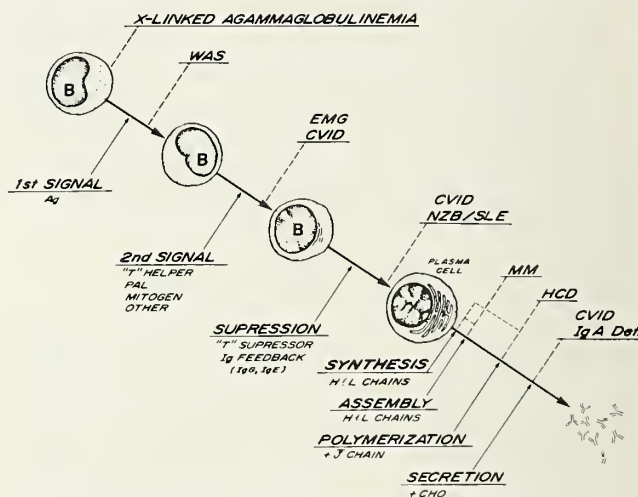


Figure 2. Terminal maturation of "B" lymphocytes. Synthesis, assembly and secretion of immunoglobulins

- WAS = Wiskott-Aldrich syndrome
- EMG = Exomphalos-macroglossia-gigantism syndrome
- CVID = Common variable immunodeficiency
- NZB = New Zealand black mice syndrome
- SLE = Systemic lupus erythematosus
- MM = Multiple myeloma
- HCD = Heavy chain disease
- Ag = Antigen
- PAL = Products of activated lymphocytes
- CHO = Carbohydrate

Broken lines indicate the postulated site(s) involved in the pathogenesis of these diseases.

Table III
CMI in Chronic Mucocutaneous Candidiasis

Type	Lymphocyte Transformation (in vitro)		M.I.F. Production	Cutaneous Delayed Hypersensitivity (Candida)
	PHA	Candida		
I	+	+	—	—
II	+	—	+	—
III	+	—	—	—
IV	+	+	+	+

ly related to our subject, multiple myeloma (MM), heavy chain diseases (HCD), autoimmunity (i.e. SLE).

The observation that the majority of patients with CVID, and virtually all patients with selective IgA deficiency, have normal or even increased numbers of circulating "B" cells is particularly relevant to this model.^{72,77} Experimental^{72,78} and clinical⁷⁹ data suggest a faulty interaction of "T" cells upon "B" cells. Some of these "frustrated" "B" cells can be triggered *in vitro* into normal or nearly normal synthesis and secretion of the missing immunoglobulin by proper stimulation with mitogens,⁷⁸ lymphokines⁷² or other yet undefined factors. Existence of a circulating inhibitor of "B" cell function, conceivably a "T" cell product,⁸⁰ has been identified in some cases of CVID.^{72,81} A lack of helper "T" cell function has been suggested in the exomphalos-macroglossia-gigantism syndrome, in which severe CMI deficiency is accompanied by nearly normal immunoglobulin levels but no antibody responses.⁸² (See also Fig. 1, VII). Evidently, the maturation arrest underlying the majority of CVID cases and those of selective IgA deficiency are very late ones.

A recent survey of lymphocyte surface-immunoglobulins in a series of patients with primary ID disclosed a fascinating observation in two patients affected with SCID and CVID.⁸³ These patients had high levels of IgD-bearing lymphocytes, some of which carried IgM simultaneously, combined with an absence of lymphocytes carrying IgM without IgD, and of IgG and IgA bearing cells. This observation suggests that one level of maturation arrest resides between lymphocytes carrying both IgM and IgD and lymphocytes carrying only IgM, IgA or IgG (In Fig. 1, level V horizontally). Mention also should be made of the recent implication of infectious mononucleosis in the genesis of acquired CVID in two familial instances (Duncan's disease).^{84,85} Since it has been shown that "B" cells have specific receptors for Epstein-Barr virus, and that the atypical lymphocyte response in infectious mononucleosis is of "T" cell origin,⁸⁶ it is conceivable that the pathogenesis of these cases of CVID may involve an abnormal "T" cell response to transformation of "B" cells by Epstein-

Barr virus, leading to "B" cell dysfunction and agammaglobulinemia. Such observations offer a plausible etiological explanation for this entity in which hereditary and environmental factors interact.

Derangements of the terminal maturation pathway of "B" cells are frequently accompanied by intrinsic abnormalities in the terminal products (immunoglobulins)⁸⁷ such as reversed kappa/lambda ratios, abnormal subclass distribution, restricted heterogeneity and imbalanced assembly of heavy and light chains (Fig. 2). This observation indicates that the problems in terminal "B" cell activation are extraordinarily complex. The disease state is not only the result of improper cell maturation, but also implies a good deal of immunoglobulin synthetic and assembly turmoil.

"T" Cell Maturation Defects

Parallel information regarding selective "T" cell defects is wanting. However, chronic mucocutaneous candidiasis (CMC)⁸⁸ may serve as a model. At least four distinct forms of immunologic defects have been identified in these hapless patients⁸⁹ (Table III.). This suggests the existence of several levels of dissociation of the *in vitro* and *in vivo* expressions of CMI. A faulty modulating effect of "B" cells upon "T" cells as suggested by Parker⁹⁰ could conceivably be the cause of some of these "T" cell aberrations. Another model of this defective "B" cell action upon "T" cells is immunoamnesia, where an auto-anti-lymphocyte antibody has been demonstrated.⁹¹ Other instances of "T" cell function dissociation are Omenn's disease (CMI deficiency with generalized skin eruption, hepatosplenomegaly, lymphadenopathy and an eosinophilia)⁹² and the ID associated with short-limbed dwarfism.⁹³ More data about these entities is necessary before we can include them into a functional "T"- and "B"-cell interaction model. ◀

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A list of references for "Immunologic Disorders in Children" may be obtained by writing IMJ, 55 E. Monroe, Suite 3510, Chicago 60603.

Monitoring of Fetal Heart Rate and Uterine Activity in Clinically Uncomplicated Pregnancy and Labor

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Presented is the analysis of data from fetal heart rate monitoring done on patients in labor, who had had no evidence of maternal or fetal complications during pregnancy or labor. Comparisons are made between these patients and similar patients who received oxytocin for induction of labor or stimulation of desultory labor. No difference in the frequency of significant fetal heart rate pattern abnormalities were found between high risk and uncomplicated labors. The use of continuous monitoring techniques is stressed for all patients in labor.

Introduction

The value of fetal heart rate monitoring in high risk pregnancy and labor is a recognized clinical fact.¹⁻⁴ Careful monitoring of clinically uncomplicated labors is lending credence to the thought that labor, in itself, is a high risk situation for the fetus. Our experience has confirmed that labors which were thought to be clinically "normal", showed a high percentage of "abnormalities" when careful fetal monitoring was employed.

Materials and Methods

All patients admitted to the delivery corridor are candidates for monitoring of fetal heart rate and uterine activity. Monitoring is carried out

using standard commercial equipment (Corometrics model 101B with central and remote display systems—404). External monitoring is carried out using ultrasonic and tocodynametric equipment. Internal monitoring is done using a spiral scalp electrode and an intrauterine pressure cannula.

Group Selected

For the purpose of this study, only patients without complications were considered non-high risk. These patients were considered to have received purely "elective" fetal monitoring. Complications of pregnancy that excluded a patient from the non-high risk ("elective") group included Rh factor, grandmultiparity, toxemia, juvenile pregnancy, etc. (Table 1). Also elimi-



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Table 1
"Complications" of Pregnancy Found in
Patients Monitored
October 1971-July 1973

	% of all patients monitored
Rh negative mother (with or without titre)	7.91
Grandmultiparity (gravidia five or above)	5.45
Toxemia	4.39
Juvenile pregnancy (≤ 16 yrs. at conception)	3.67
Diabetes	2.46
Hypertension	1.76
Elderly Nulliparous (> 35 yrs.)	1.58
Previous perinatal death	1.58
Anemia (< 10 Gms hemoglobin)	0.88
Heart disease	0.53
Other	3.69

nated from the non-high risk group were patients with complications of labor occurring before the monitor was connected (i.e., premature rupture of the bag of waters, abruption and amnionitis—

Table 2
"Complications" of Labor Found in
Patients Monitored
October 1971-July 1973

	% of all patients monitored
Premature rupture of B.O.W.	20.74
Abruptio	2.64
Amnionitis (Temp. >101°F without other symptoms)	1.76
Prolapsed cord	0.70
Placenta previa	0.35
Other and undetermined	6.15

Table 2). Fetal indicators leading to a "high risk" designation for monitoring included prematurity, postmaturity, presence of meconium stained amniotic fluid, and heart tone abnormalities by auscultation (Table 3).

Table 3
Fetal Factors for Monitoring
October 1971-July 1973

	% of all patients monitored
"Elective"	72.58
Prematurity (≤ 36 weeks)	10.37
Meconium passage (cephalic presentation only)	7.73
Postmaturity (> 42 weeks)	5.10
Breech	4.92
Bradycardia (< 120 BPM)*	4.74
Irregularity of FHR*	2.81
Diagnosis of fetal viability	1.58
Tachycardia (> 180 BPM)*	1.05
Other	1.93
*by auscultation	

During the course of labor, factors affecting uterine dynamics (i.e., employment of oxytocin, relative cephalo-pelvic disproportion, uterine inertia etc.) were also considered to place the fetus at increased risk (Table 4).⁵ The unusually high percentage of oxytocin inductions and stimulations in the monitored group is due to selection of these patients for preferential monitoring. Twenty per cent of the inductions and approximately 30% of the stimulations had premature rupture of the bag of waters.

For special study, we have chosen to examine data on those patients who had no clinical risk factors before or during their labor. These patients represent a "non-high risk" group. A comparison was done on those patients who were also "uncomplicated," but received elective oxytocin induction or oxytocin stimulation for desultory labor. Data examined was from the period October 1971 through July 1973.

Table 4
Uterine Dynamic Factors Found in
Patients Monitored
October 1971-July 1973

	% of all patients monitored
Oxytocin stimulation	45.17
Oxytocin induction	18.45
Failure to progress	9.67
Uterine inertia (1° or 2°)	8.79
Suspected cephalo-pelvic disproportion	6.85
Multiple gestation	2.46
Non-oxytocin induction or stimulation	1.41
Uterine anomalies	0.18
Other	1.76

Division of Group

The Clinically uncomplicated group (Group 1) included 71 patients. Forty-three additional patients, who were uncomplicated except for oxytocin induction, were placed in a second group (Group 2). A third group was comprised of 92 clinically uncomplicated patients who received oxytocin stimulation for desultory labors (Group 3). The total number of patients in the three groups was 206. For some comparisons all 206 patients have been grouped together (Group 4).

During the study period 569 admissions to the delivery corridor were monitored, representing 565 mothers. In some comparisons several of the groups are compared to the total population monitored (569 tracings—Group 5). Thus, Group 5 represents the overall type of patients who currently receive the benefit of continuous fetal monitoring. It should be noted that in comparisons made with Group 5 the group being compared has not been removed from the statistics. This decreases biasing of the overall population and makes the proof of statistical significance more rigorous. (Statistical significance has been evaluated by the standard error of the mean, chi-square, and common chi-square techniques.)

Monitoring rates increased from 9.66% of all labors during the first month to 71.32% during July 1973. Internal monitoring techniques were employed in 47.05% of our patients. (At present, approximately 80% of all of our admissions are monitored.)

Results and Analysis

The average age of the mothers in the clinically uncomplicated group (Group 1) was 24.03 yrs. (sd=4.785). The average age in the oxytocin induction and stimulation groups (Groups 2 &

3) was 27.19 yrs. (sd=4.847) and 26.55 yrs. (sd=4.512), respectively. Age differences between the oxytocin groups and the clinically uncomplicated group were found to be statistically significant ($P<.003$, $P<.0001$), while there were no significant differences within the oxytocin groups. The disparity between the uncomplicated and oxytocin groups was thought to represent a selective difference between private patients of the faculty staff as opposed to house patients. The use of oxytocin in the care of house patients requires consultation and approval of an assigned faculty physician. For this reason, oxytocin is less likely to be used in such patients. These patients, as a group, tend to be younger than comparable private patient populations, but since no breakdown as to patient classification is available, this is only conjecture.

No statistical differences in parity, gestational age, birth weight, or five minute Apgar score were noted in the data (Table 5). The method of delivery employed showed a significant difference from that of the overall group of monitored patients, but no significant differences within the three uncomplicated groups (Table 6). In

comparison, the patients in the uncomplicated groups were more likely to be delivered by "prophylactic low forceps" and were less likely to be delivered by spontaneous deliveries, mid forceps, or other methods. The use of "prophylactic low forceps" is taught as part of good obstetrical care in our institution.

Fetal Heart Rate Patterns

Analysis of the fetal heart rate (FHR) patterns recorded among the three clinically uncomplicated groups showed no statistically significant differences. However, striking differences were found when the uncomplicated group (Group 4) was compared to the total population monitored (Group 5, $P=.0318$). As expected, the clinically uncomplicated patients monitored were more likely to have normal FHR patterns ($O=83$, $E=63$, 38.00% to 44.19% of patients in Groups 1-3, average 40.29% for Group 4). Neither is it surprising that these patients had fewer than expected instances of tachycardia, bradycardia, or marked variability on the basis of the overall group monitored.

Head compression patterns (early decelerations) were more frequent in the uncomplicated groups, while cord compression types (variable decelerations) were unchanged from the overall. No difference was found in the frequency of the occurrence of uteroplacental insufficiency patterns (late decelerations, UPI) between the clinically uncomplicated (Group 4) and the overall population (Group 5). This dangerous pattern⁶ was seen in 16.99% of the uncomplicated patients monitored (Group 4) and 19.79% of all patients monitored.

Many abnormalities seen in the FHR tracing may be of minimal clinical significance. Abnormalities may be traceable to correctable causes (i.e., maternal hypotension, hypertonus secondary to stimulation, etc.) which may be reversed with subsequent improvement in fetal status. The presence of an "abnormality", however, always demands the clinician's full attention and assessment of the risks. Uteroplacental insufficiency (UPI) is regarded as a harbinger of danger for the fetus.⁶⁻⁸ Its presence should alert the clinician that early and active steps may be required to ensure the delivery of a healthy infant. Approximately one patient in every eight showed this dangerous pattern.

The Role of Oxytocin

Although there were no statistically significant differences in the distribution of FHR abnor-

Table 5
Average Parity, Gestation, Birth Weight and Five Minute Apgar in Uncomplicated, Oxytocin Induction and Stimulation Pregnancies
October 1971-July 1973

	Uncom- plicated	Oxytocin Induct.	Oxytocin Stim.
Parity on admission	0.817	0.953	0.685
Gestation (weeks)	39.94	39.81	39.75
Birth weight (Gms)	3264.4	3388.2	3338.7
Apgar (five minute)	8.97	8.98	8.98

Table 6
Method of Delivery in all Patients Monitored, Uncomplicated, Oxytocin Induction and Stimulation Groups
October 1971-July 1973

	All Patients	Uncom- plicated	Oxytocin Induct.	Oxytocin Stim.
Spontaneous	13.93%	12.86	9.76	5.43
Outlet forceps	17.46	20.00	17.07	20.65
Low forceps	41.45	50.00	63.41	54.35
Mid forceps*	5.29	5.71	7.32	5.43
Rotation—				
Manual	(2.82)	(2.86)	(2.44)	(3.26)
Forceps	8.11	11.43	2.44	9.78
Breech—				
Spontaneous	2.47	—	—	—
Forceps	2.65	—	—	—
Primary Cesarean				
Sect.	7.94	—	—	4.35
Other	0.71	—	—	—

*without rotation

malities between the uncomplicated and oxytocin groups, the question of oxytocin's role in adding risk to the fetus must be considered.^{5,9-11} Oxytocin is a dangerous drug that should not be used injudiciously. We did, and still do, preferentially monitor mothers who receive oxytocin, believing them to be more likely to show FHR abnormalities, however this was not born out in this group ($P=.75$).

Analysis of uterine dynamic factors (including oxytocin) in all patients monitored having UPI patterns, showed no significant change in the incidence of oxytocin usage. Even in those patients where it was subjectively felt fetal distress was present, oxytocin could not be implicated. In this latter group, the incidence of oxytocin use was significantly less than expected ($P<.0005$). This should not be construed to mean that oxytocin is not an indication to employ fetal monitoring. These findings are in contrast to those of other investigators.⁹ In our hospital oxytocin is infused by means of a constant rate infusion pump. By carefully regulated infusion and constant feed-back on the status of both mother and baby, problems may be detected and corrected early.

Contraction Patterns

Uterine contraction patterns were normal in over 70% of all patients monitored. For statistical comparison these observations were lumped into "normal" and "abnormal" classes (Table 7). It is in uterine contraction observations that we find one of the few major differences between the clinically uncomplicated patients (Group 1) and the uncomplicated patients who received oxytocin (Groups 2 & 3) ($P=.0407$). Clinically

Table 7
Uterine Contraction Patterns in Uncomplicated, Oxytocin Induction and Stimulation Patients (Groups 1, 2, & 3)
October 1971-July 1973

	All patients (% of pts.)	Group 1	Group 2	Group 3
"Normal"	70.5	84.5	79.1	84.8
"Abnormal"	29.5	15.5	20.9	15.2

uncomplicated patients who did not receive oxytocin were more likely to have normal patterns than those who received the drug. Patients who received oxytocin stimulation for desultory labors (not primary or secondary inertia) had the greatest number of abnormal contraction patterns.

Comparison of the total group monitored

(Group 5) and the sum of the three uncomplicated classes (Group 4) did not show a difference in uterine contraction patterns ($P>.317$). No statistical difference in contraction patterns was found when all patients with UPI patterns were compared to the total group monitored (Group 5). There was, however, an increase in abnormal patterns in patients who were subjectively thought to show clinical fetal distress. While this difference was not strictly out of the realm of chance (all "fetal distress" vs Group 5— $P=.0617$), it is suggestive of a trend. Abnormal contraction patterns associated with the use of oxytocin may represent increased risk to the fetus, unless adequate care and monitoring are undertaken.

Use of Anesthesia

Iatrogenic changes in the maternal-fetal unit come about quite frequently with the use of anesthetic and analgesic agents. In our setting the most commonly used anesthetic is the continuous lumbar epidural (see Table 8). While

Table 8
Anesthetic Agents in Uncomplicated, Oxytocin Induction and Stimulation (Groups 1, 2, & 3)
October 1971-July 1973

	All patients (% of pts.)	Group 1	Group 2	Group 3
None	5.45	2.82	4.65	0.00
Local	2.82	4.23	2.33	2.17
Pudendal	10.19	9.86	4.65	7.61
Caudal	5.27	4.23	6.98	8.70
Lumbar				
Epidural	79.26	81.69	81.39	92.39
Spinal	2.64	1.41	2.33	2.17
Gen.				
Analgesia	2.28	12.68	2.33	0.00
Gen.				
Anesthesia	3.16	0.00	2.33	1.09
Other	7.02	22.54	0.00	2.17

this technique avoids direct pharmacologic actions on the fetus, changes in the maternal status may still have profound effects. Underlying the use of any regional anesthetic is the risk of maternal hypotension. Especially common in the presence of maternal hypotension is the observation of UPI type FHR patterns.^{6,12} Decreased blood flow from the mother causes stress on the oxygen and metabolic waste exchange of the utero-placental unit followed by acidosis, hypoxia, and depression of fetal heart rate. Although frequently transitory in nature, this does indicate loss of compensation by the fetus and presence of increased risk as demonstrated by Hon.⁶

Once again, no difference was associated with the usage of epidural techniques within the three uncomplicated groups (81.69%, 81.39%, 92.39%). Epidural anesthetics were, however, more common in the elective groups than in the overall patients monitored (Group 5, $P < .0005$). The high risk nature of many of the mothers in the group of all patients monitored probably accounts for the greater use of conservative local agents (i.e., pudendal, local), and general anesthesia-analgesia techniques.

If we examine all patients that showed UPI patterns compared to Group 5, we find that fewer epidural anesthetics were administered, although strict significance cannot be shown ($P = .0710$). Care must be exercised to avoid hypotention and fetal distress anytime regional anesthetic techniques are used. Just as maternal blood pressure should be monitored, the fetal heart rate deserves the benefit of continuous monitoring.

Summary

Despite the best care we can provide, labor is a time of extreme stress for the fetus. Rapid and positive intervention may be required at any point to offer every hope of health to the unborn child. The role of continuous fetal heart rate monitoring in evaluating the fetal status cannot be denied, and all patients should be afforded its benefits. Elective monitoring of clinically normal patients should become the routine, for there is no greater tragedy than a preventable one. ◀

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Intraabdominal and Pelvic Surgery

(Continued from page 51)

Because of the added risks which ensue from the prolongation of anesthesia, additional blood loss replacement averaging 500-1000 ml., and the increased magnitude of the operation and the surgical field, this approach should be reserved for elective operations in low risk patients with a strong motivation. It is contraindicated, and is indeed dangerous, in emergency operations, in the presence of systemic disease, with advanced age, and in the presence of transverse abdominal scars.

Summary

The use of the abdominoplasty incision for intraabdominal and pelvic surgery conceals the surgical scar within the "bikini area". Noticeable scars on the abdominal skin, resulting from the standard incisions, are eliminated. ◀

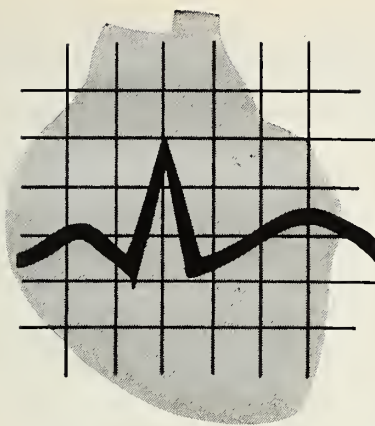
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Support

Your

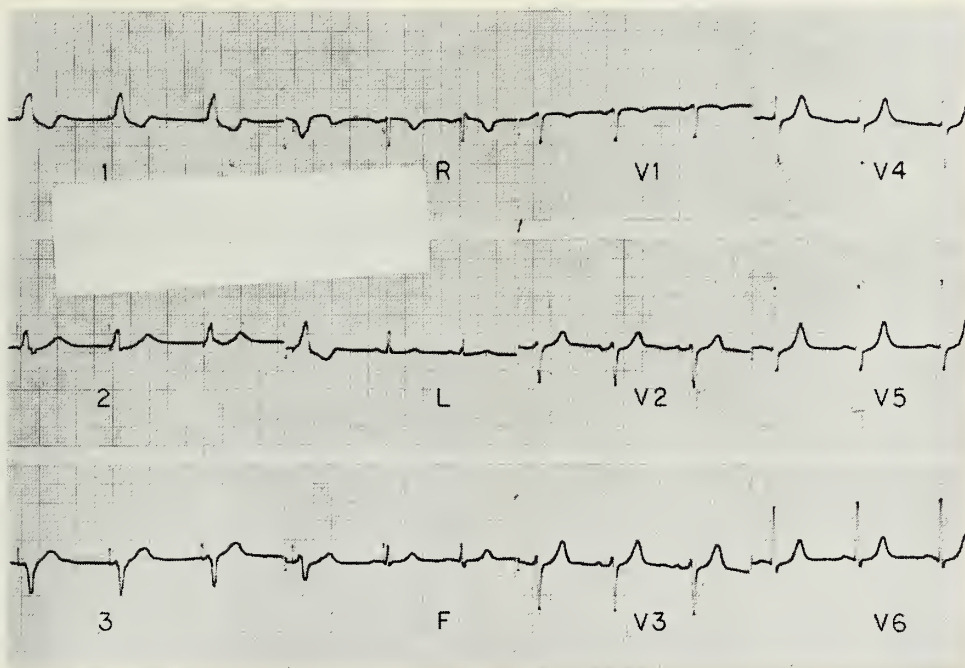
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ekg of the month

JOHN R. TOBIN, JR., M.S., M.D., RIMGAUDAS NEMICKAS, M.D.,
PATRICK J. SCANLON, M.D., JOHN F. MORAN, M.S., M.D.,
SARAH JOHNSON, M.D., and ROLF M. GUNNAR, M.S., M.D./
Section of Cardiology, Department of Medicine,
Loyola University Stritch School of Medicine

A fifty-six year old man presented with a history of three syncopal episodes. On one occasion, he fell and sustained a laceration to his forehead. His resting ECG was normal except for sinus bradycardia. A Holter monitor ECG demonstrated heart rates as low as 30 beats per minute when he felt lightheaded. A demand pacemaker was placed in the right ventricular apex via the transvenous approach. The ECG taken at a follow-up office visit one month later is shown:



Questions:

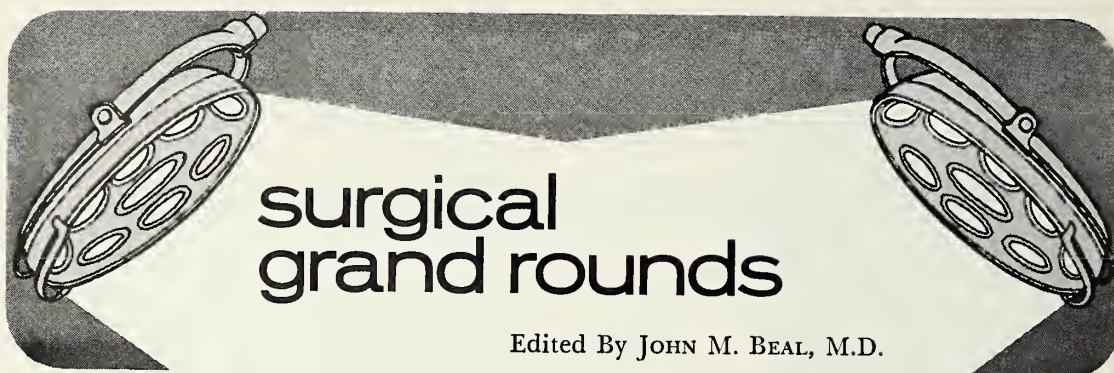
1. The ECG shows:

- A. Idioventricular ventricular rhythm.
- B. Fusion beats.
- C. Sinus arrest.
- D. Demand pacemaker functioning well.
- E. Ventricular parasystole.

2. The treatment for this should include:

- A. Atropine sulfate one mgm IV.
- B. 100 mgm bolus of lidocaine IV followed by a lidocaine drip.
- C. Quinidine.
- D. Digoxin for IV digitalization.
- E. None of the above.

(Answers on page 67)



Surgical Grand Rounds are held weekly on Tuesday at 5:00 p.m. in the Offield Auditorium of the Passavant Pavilion of Northwestern Memorial Hospital. Patient presentations from Northwestern Memorial Hospital and the Veterans Administration Research Hospital form the basis of the discussions. This case report was part of the Surgical Grand Rounds of March 4, 1975.

Renal Artery Aneurysm

Dr. C. Andrew Heiskell: A 48-year-old white man was admitted to the Northwestern Memorial Hospital with hypertension. Six months before admission, his physician found that he had a slightly elevated blood pressure, but not high enough to require treatment. One month prior to admission he was examined again, and his blood pressure was found markedly elevated. His physician prescribed Aldomet, 250 mg qid. Two weeks later he developed severe bilateral frontal headache and was referred to this institution. At the time of admission, review of past medical history revealed that ten years before he had had a sudden episode of right flank pain. Cystoscopy was performed and he was told that he had "gravel" in his bladder. His present medication was Aldomet, 250 mg, qid and Lasix, 80 mg.

Physical examination revealed a blood pressure of 205/140, pulse and respiration were normal. Physical examination was within normal limits except for AV nicking and scattered exudates on the eye ground examination. The investigation in the hospital was initiated with a study of the upper urinary tract. Serum electrolytes were normal except for a slightly decreased serum Potassium. Chest X-ray was normal and the cardiogram showed left ventricular hypertrophy. A timed intravenous pyelogram was obtained, and was followed by renal arteriography. Renal vein catheterization disclosed that the left renal vein renin level was 16 units per cc per hour and that the right renal vein was approximately three times as great. His blood pressure

remained elevated at 220/140 despite antihypertensive medication.

Dr. Harold Matthies: An excretory urogram was done and on the following day a timed excretory urogram was performed. On the timed excretory urogram, at two minutes there was good visualization on the left side and no visualization on the right. Finally, at five minutes, there was some visualization on the right. On the preliminary films, there was a faintly discernible peripherally calcified mass in the right upper quadrant in the region of the right renal artery, presumed to be a calcified aneurysm (Fig. 1).

Subsequent flush and selective renal arteriography showed a fusiform partially calcified aneurysm of the right renal artery with some stenosis, both proximal and distal to the aneurysm. A small intrarenal aneurysm was noted in the mid portion of the right kidney on a selective angiogram and it is postulated that there had been infarction of the upper pole of the right kidney. (Fig. 2)

The selective angiogram of the left kidney showed irregularity of the superior and medial aspects of the left kidney which probably represented an infarction. A small intrarenal aneurysm could be seen in the film of the left kidney. There was also atherosclerosis and some fusiform dilation in the mid portion of the left renal artery. (Fig. 3)

In summary, vascular disease was present in both kidneys, but there was much more vascular impairment on the right.

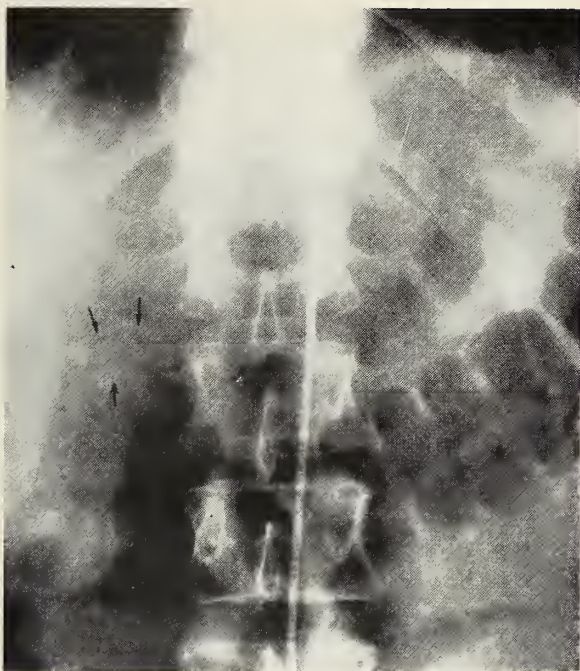


Figure 1. Preliminary film detected a faintly calcified mass in the region of the right renal artery.

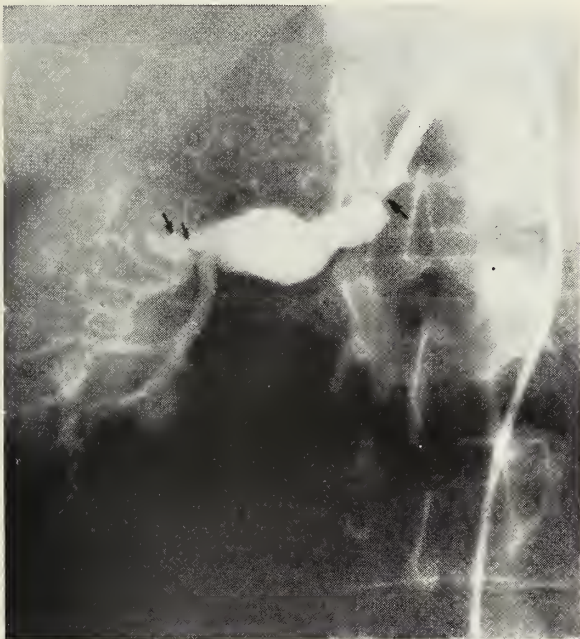


Figure 2. Selective renal arteriogram showed a fusiform aneurysm of the right renal artery with stenosis, both proximal and distal to the aneurysm.

Dr. C. Andrew Heiskell: The patient was taken to the operating room where the right kidney was exposed. The right renal vein was isolated and an area of infarction was found in the upper pole of the kidney.

The kidney was mobilized and reflected medially. The renal artery aneurysm was found exact-

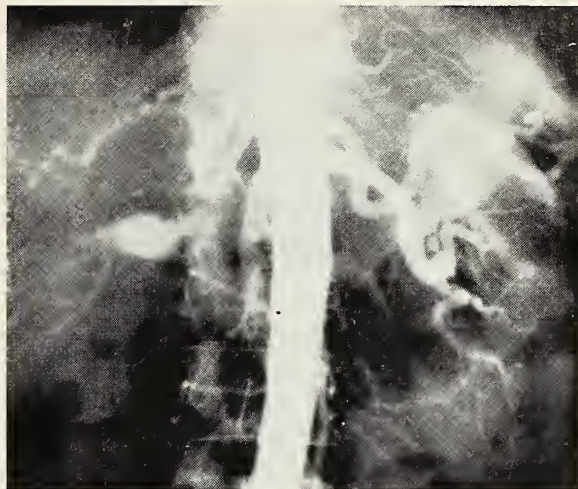


Figure 3. Angiographic study of the left kidney detected evidence of atherosclerosis. Fusiform dilatation of the left renal artery was clearly visualized.

ly as demonstrated on the arteriogram. There was marked stenosis at the origin of the right renal artery and the large aneurysm was just distal to this narrowed area. Occlusion of the superior polar vessel had caused an area of infarction of the kidney. The aneurysm was resected and a graft was inserted between the aorta and the distal end of the renal artery, passing beneath the vena cava. Both kidneys were exposed and biopsied. The pathology report was mild bilateral nephrosclerosis.

The reconstruction was accomplished with an 8 mm woven dacron velour graft. During the operation, the kidney was protected by lavage with iced Ringer's lactate and the ischemia time was 40 minutes. At the completion of the procedure, the kidney appeared to be very well vascularized and did not seem to have any severe ischemic changes.

Postoperatively, the patient did well and his blood pressure was 130/80 immediately. Approximately five days later, his pressure rose to 170/90 and Hydrodiuril was prescribed. Three weeks after operation, his blood pressure was 130/80 and it was planned to discontinue Hydrodiuril. A postoperative urogram was obtained.

Dr. Harold Matthies: The postoperative urogram showed excellent visualization at five minutes bilaterally without any suggestion of delayed excretion, hyper- or hypoconcentration on either side. There is at this time good bilateral and symmetrical function.

Dr. C. Andrew Heiskell: Renal artery aneurysms typically occur in the older, 50 to 70 year, age group, although they have been reported as early as eight years of age. The incidence is ap-

proximately one percent of all patients with hypertension and 15 percent of people with renal artery stenosis.

The etiology can be quite varied. Many of the sacular aneurysms are thought to be congenital or appear at earlier age groups. Of the acquired group, arteriosclerosis is the most common etiologic agent, but mural dysplasia and collagen disease are also common causes. They can occur as a result of both blunt and penetrating abdominal trauma and are sometimes seen in conjunction with tumors of the retroperitoneum and kidney.

The pathology again is quite varied. Most of them are true aneurysms; they have been reported to dissect and some have been reported with AV communications. The point of whether or not the renal artery is calcified was a dominant topic in the literature. It was felt for a long time that calcified renal artery aneurysms did not rupture, while only the noncalcified aneurysms did rupture. However, this has recently been disproven and now the best treatment for the calcified aneurysms is thought to be the same as that for the uncalcified aneurysms.

The clinical presentation is pretty well summarized by Cerny. In an article in 1968, he presented 65 patients with renal artery aneurysms. The presenting problem was hypertension in the largest number, with headache and flank pain also being common symptoms. Our patient, as you recall, had all three of these. The cause of the flank pain is unknown. Some people feel that enlargement of the aneurysm causes the flank pain; others think that because of the hematuria, perhaps a clot gets in the ureter and they have ureteral colic. This really is not well described, but is a known presentation. In this report, one patient presented with a flank mass which was actually a ruptured renal artery aneurysm.

Approximately 20 to 30 percent of renal artery aneurysms rupture with a mortality rate of 80 percent. Those that do not rupture may cause progressive hypertension. We do not have figures to say what percentage of the patients develop hypertension, because many aneurysms have been detected in recent years through the increased use of arteriography.

The treatment of renal artery aneurysms is excision and vascular reconstruction when possible. These aneurysms may be located so that it is not possible to save the kidney. In these instances, because of the incidence of progressive hypertension and associated rupture of the aneurysms, nephrectomy is advised.

Dr. Richard Dean: Renovascular hypertension (RVH) results from the pathologic stimulation of the renal pressor mechanism. Briefly stated, severe renal artery stenosis reduces intrarenal perfusion pressure and thereby stimulates renin release from the juxtaglomerular apparatus. Renin then converts the inactive precursor, angiotensinogen to angiotensin I. A plasma converting enzyme then converts angiotensin I to the potent vasoconstrictor, angiotensin II, thus increasing peripheral resistance and producing systemic hypertension.

Three basic questions warrant comment in any discussion of RVH. They are, given a hypertensive population: Who should be evaluated for the presence of RVH? What diagnostic studies would be performed? Who should undergo operative management?

First, who should be evaluated? The frequently quoted indices that suggest a renovascular origin are: 1) hypertension occurring at a young age; 2) recent onset or accelerated hypertension; 3) lack of a family history of hypertension; and 4) the presence of an abdominal bruit. Although the presence of these factors may increase the likelihood of a remedial cause, their absence does not exclude the diagnosis of RVH.

In the Vanderbilt series, 43 percent of the patients with proven RVH were over the age of 50 years, duration of hypertension ranged from two months to 20 years, 50 percent had a positive family history, and only 50 percent had an audible abdominal bruit. Therefore, these points of the history and physical examination cannot be used to exclude patients from further investigation. All patients who would be acceptable operative candidates if a significant lesion were found should be intensively studied. This automatically excludes the unacceptable operative risk or patient with mild, easily controlled hypertension.

Second, what studies should be performed in screening hypertensive patients? The rapid sequence intravenous pyelogram, if positive, is very helpful. Nevertheless, approximately 30 percent of patients with RVH cured by operation had a normal rapid sequence intravenous pyelogram. Likewise, isotope renography may show evidence of decreased renal perfusion but also is falsely normal in 20 to 30 percent of patients with RVL. Recently, perhiperal venous renin assays have been suggested as a potential screening test. They are elevated in most patients with RVH. Nevertheless, errors in patient preparation and performance of the assay lead to falsely low values in

some individuals. Therefore, none of these tests will effectively identify all potential cases of RVH.

At this time, I feel that renal angiography alone has the necessary sensitivity to be used as a screening test and would employ it in anyone who would be an operative candidate if a significant lesion were discovered.

Although 34 percent of the 1,750 patients evaluated with angiography in the Vanderbilt series had renal artery stenosis, only 14 percent had RVH. The question, then, is which patient with hypertension and renal artery stenosis has RVH. Two studies have emerged as the best tests to evaluate the functional significance of renal artery stenosis. These are, split renal function studies (SRFS) and renal vein renin assays (RVRA). Many centers have stopped using SRFS because of the potential morbidity associated with its performance. We have continued to use them, however, and find them valuable in investigating patients with bilateral lesions and in assessing the viability of extremely ischemic kidneys. If the SRFS are positive or if the RVRA lateralize with a ratio of at least 1.4:1 in renin content between the involved and the uninvolved kidney, the diagnosis of RVH is established and operative management should be considered.

The selection of operative candidates depends upon the severity of hypertension and the risk of operation. We presently feel that all patients with severe hypertension, diastolic blood pressure greater than 115 mmHg., should be considered for renal revascularization.

In comparing the results of operation and drug therapy in patients with severe hypertension after a seven to ten year follow-up, the Mayo Clinic showed that deaths and related morbid events were significantly less frequent in the operative group. Although no similar study supports the rationale of operative management of moderate hypertension, diastolic blood pressure between 105 and 114 mmHg., it may be indicated in young, healthy patients who would otherwise be subjected to many years of drug therapy. Certainly, mild hypertension does not constitute an indication for intensive evaluation or operation.

The preferred method of renal revascularization is autogenous saphenous vein aorto-renal bypass. There are instances, however, when Dacron aorto-renal bypass is equally applicable. In children with large post-stenotic renal arteries, Dacron is preferable, for the saphenous vein is

usually too small. Likewise, as this case demonstrates, a Dacron bypass may work equally well in adults with a large distal renal artery and a thick atherosclerotic aorta.

Finally, the decision for operative treatment of RVH depends heavily on the results of such therapy. If the operative mortality and graft thrombosis rates are high and the frequency of blood pressure control low, then operative management is not warranted. To the contrary however, the Michigan and Vanderbilt series have shown excellent results of operation. Both have had low operative mortality rates, less than two percent, and excellent patency rates of aorto-renal bypass, greater than 90 percent. Further, in Foster's series, more than 90 percent of patients with successful operations have had a favorable response in blood pressure control. Although the cure rate for patients with fibromuscular dysplasia was greater than that for patients with atherosclerotic disease, the total percent either cured or improved was comparable in both groups. Therefore, if these results can be duplicated, an aggressive approach to the investigation of hypertensive patients and the surgical management of RVH is warranted. ◀

EKG

(Continued from page 63)

Answers: 1. B,C,D 2. E

The twelve lead ECG shows an absence of P waves in the simultaneously recorded leads 1, 2, and 3 in keeping with sinus node arrest. There is no way to differentiate sinus node generator failure from a third degree sino-atrial exit block. In either case, asystole would result if there were no intrinsic escape pacemakers. Here a demand pacemaker escapes maintaining a heart rate of sixty-two beats per minute. Simultaneous leads avR, avL, and avF show the reappearance of the P wave and ventricular capture. The fifth beat from the left is a fusion beat. Note the pacemaker stimulation artifact preceding each of the first five beats. The remainder of the ECG appears normal. The demand pacemaker is suppressed by the reappearance of sinus rhythm, and the pacemaker is functioning well. No treatment is needed.



report

Illinois Society
American Association of Medical Assistants



Fred Sapetti, Asst. Supervisor, Medical Payments Section, Bureau of Medical Services, Illinois Dept. of Public Aid confers with Marie Cronlund, Regional Coordinator for MEDICHEK, Illinois Dept. of Public Health.

A workshop for medical assistants on MEDICAID-MEDICARE-MEDICHEK- and CHAMPUS has been traveling in downstate Illinois with record-breaking attendance. Similar workshops will be offered in Chicago during the month of February for Cook County medical assistants. Admission is by reservation only so watch for the invitation that will be extended by mail by the Illinois State Medical Society. Previous locations



Some of the participants at one of the government workshops.

have been Belleville, Naperville, Waukegan, Bloomington, Springfield and Ottawa. This traveling program has been a combined project of the Illinois State Medical Society and the American Association of Medical Assistants, Inc., Illinois Society.

The workshops feature the Continental Casualty Company (Part B-MEDICARE); Illinois Department of Public Aid (MEDICAID); Illinois Department of Public Health (MEDICHEK); and Civilian Health & Medical Program of the Uniformed Services (CHAMPUS). During the two and one-half hour session, the government experts provided solutions to many problems that medical assistants encounter with the programs. Recent changes in these programs, as well as tips for completing forms with relative speed and ease, are examples of the topics presented to the medical assistants in attendance.

These workshops are a result of the efforts of the Illinois Society of the A.A.M.A. towards furthering professional education for medical assistants.



Carlos Landrum, Public Relations Coordinator, Medicare Benefits, Div. Continental Casualty Co., addresses one session of the workshops, while moderator, Magda Brown, President, Illinois Society, AAMA, listens.

Doctor's News

BE A BLOOD DONOR—IT FEELS GOOD! January, 1976, has been proclaimed National Volunteer Blood Donor Month. During this time, blood banking and blood donor recruiting organizations will be making a special effort to inform people of the need for blood, and the importance of donating blood often.

In December and January it is especially difficult to find blood donors because inclement weather, colds, flu, and so on, make would-be donors postpone their visit to the blood bank. Yet, people scheduled for elective surgery tend to put it off until after the Christmas holidays, thereby making January perhaps the worst time of the year with greater demand and lesser supply of blood.

SIGN IN-HOSPITAL CONTROLLED SUBSTANCE ORDERS—Recent inquiry has identified a need for physicians to sign all orders for Schedule II substances for in-hospital patients. It is improper to use the official state triplicate prescription form. The hospital chart should be signed, not initialed, as soon as possible, after an order is given.

Related to this is a recent ruling by the Dangerous Drugs Commission indicating that all Schedule II substances are now considered "designated products," therefore requiring the triplicate prescription. Thus, the barbitals will require the triplicate, unless prescribed in combination with and as a part of another active medicinal ingredient.

ANNUAL ALUMNI DAY OF THE DEPARTMENT OF OPHTHALMOLOGY of The University of Chicago is scheduled for Wednesday, March 3, 1976 at Albert Merritt Billings Hospital. A buffet luncheon beginning at 11:30 A.M. in Room E-110 will precede the scientific program. Tours of the Eye Research Laboratories will be available for those interested. All ophthalmologists are invited to attend. There are no fees.

For further information, contact Peter H. Morse, Associate Professor of Ophthalmology.

THE AMERICAN RETIRED PHYSICIANS ASSN. is a new organization being formed to serve retired and semi-retired physicians. The association, which has received an AMA grant to aid its development, will be open to physicians aged 55 or over and their spouses, or widows. Annual dues of \$10 will cover both the physician and spouse. Beginning next year, a newsletter will include news of group tours and low-rate purchase of major consumer items, as well as information on practice disposal, wills, and retirement income. For information write American Retired Physicians Assn., Suite 906, 400 N. Michigan Ave., Chicago, Ill. 60611.

CONFERENCE ON PRISON MEDICINE—Prison medicine is the topic of an upcoming program sponsored by ISMS, SIU School of Medicine, University of Illinois School of Public Health, Illinois Department of Corrections and the Illinois Prisons and Jails Project. The Conference, "The Prisoner as a Patient: Medical Care in a Prison Environment," will be held January 21, 1976, at the LaSalle Hotel, 10 N. LaSalle, Chicago. It will deal with problems associated with the delivery of medical care in prisons; security vs. medical needs, stress, use of personnel and outside medical resources and examining the Illinois system. For information contact Larry Boress at the ISMS offices, 55 E. Monroe, Suite 3510, Chicago 60603. (312) 782-1654.

CHOKING MANEUVER ENDORSED—The Heimlich Maneuver, a life-saving first-aid technique to rescue individuals choking on food, has received the official endorsement of the AMA's Commission on Emergency Medical Services. In an interview Dr. Henry J. Heimlich, Cincinnati, the surgeon who developed the maneuver, says, "3,900 healthy individuals in the United States strangle each year because of food stuck in their throats. Choking is the sixth leading cause of accidental death."

To perform the Heimlich maneuver stand behind the victim and wrap your arms around his waist. Grasp your fist with your other hand and place the thumb side of your fist against the victim's abdomen, slightly above the navel and below the rib cage. Press your fist into the victim's abdomen with a quick upward thrust. Repeat several times if necessary, until the food is expelled.

MEDICAL SCHOOL ABANDONS SHORTENED TRAINING PROGRAM—Rush Medical College has become disillusioned with the shortened training program for physicians and is changing back to a four year course. Dr. William Hejna, Rush dean, says, "Many of the arguments advanced in favor of shortening the standard medical school curriculum to three years may no longer be valid, and such shortening may cause tensions among students and faculty. Further, this innovation does not materially address issues such as physician availability, quality and maldistribution."

He also points out that the body of fundamental biomedical science which the medical student must absorb is continually increasing. The behavioral sciences have also taken on new importance and time in medical schools.

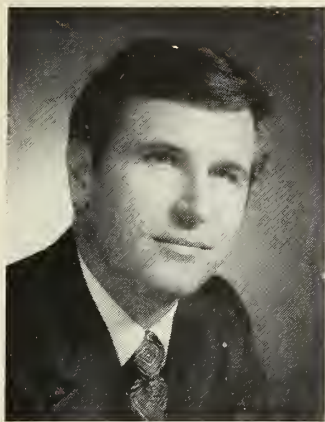
At Rush, 55% of the students favored extending their training to four years. The shorter course meant going to school straight through the summer, with no break for three full years in the demanding study schedule.

PHYSICIANS IN THE NEWS—Charles H. Kramer, M.D., founder and director of the Family Institute of Chicago, has been appointed director of the Center for Family Studies, a Division of the Institute of Psychiatry of Northwestern Memorial Hospital. The newly formed Center for Family Studies is a result of a merger by the Family Institute of Chicago and the Institute of Psychiatry of Northwestern Memorial. In addition Dr. Kramer has been appointed Professor of Clinical Psychiatry on the faculty of the Northwestern University Medical School, Department of Psychiatry.

William H. Wehrmacher, M.D., has been appointed Adjunct Professor in Physiology at the Stritch School of Medicine, Loyola University Medical Center, Maywood. In his new capacity Dr. Wehrmacher will collaborate in the research efforts of the Physiology Department, assist in teaching of medical physiology, and provide consultation to physiology graduate students on matters of clinical physiology.

Kate H. Kohn, M.D., has been named Chairman of the Department of Rehabilitation Medicine at Michael Reese Hospital and Medical Center. The announcement was made by Dr. Lawrence M. Klainer, Executive Vice President. Dr. Kohn, who has been Acting Chairman of the department since 1970, is the medical center's first full-time woman chairman of a medical department.

Andrew Toman, M.D., Cook County coroner and member of the Chicago Medical Society, was honored recently at a banquet for his many years of exemplary public service. Dr. Toman will retire from public service on January 1, 1976.



President's Page

Medical vs. Political Thinking

When a physician treats a patient in the emergency room or is called for consultation, he evaluates the problem based upon his training, medical experience and understanding of the treatment that will produce the best result for that individual patient. Granted, a physician cannot always produce a 100 percent return to full health. However, based upon his experience, he generally can guide that patient toward the most complete recovery possible.

At that point, the physician may then allow himself some *emotional* involvement. Specifically, he derives satisfaction from his accomplishment . . . an accomplishment made possible by the application of factual, "medical type" thinking. It is indeed this same type of thinking which has produced the high level of medical care now available. Emotion enters only near the *end* of the doctor-patient relationship.

However, when the same physician is asked to discuss IDPA, government intervention, bureaucratic regulations or the malpractice situation, he often is prone to become emotional first . . . and factual second.

The approach most needed by our profession at this time is the application of "medical thinking" to legislative and other political problems. For too long we have allowed ourselves the luxury of purely emotional responses—similar to dressing room speeches or coffee shop rhetoric.

This accomplishes nothing! It does not convey the necessary points to those who have promulgated the IDPA edicts or bureaucratic regulations which affect our profession.

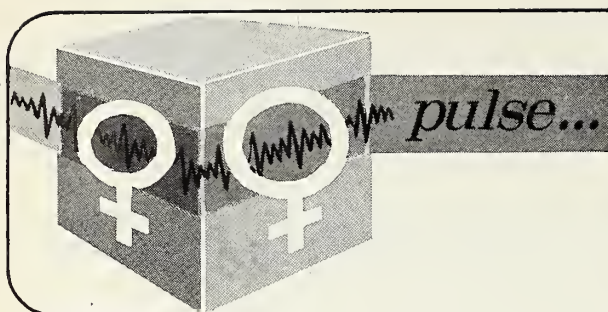
Indeed, this emotionalism renders the physician virtually ineffective in areas where he is confronted with "political type" thinking . . . areas where the need is greatest for non-emotional discussion and factual presentation to legislators, etc. If we apply this factual, logical "medical thinking" to the problems of the political world, I do not think it is too optimistic to predict that our believability, capability and success in these areas will reach new heights. At the same time, it would be a giant stride toward protecting our practices from the dictates of "political" thinkers.

I believe the majority of our legislators stand ready to listen and aid in decreasing the bureaucratic onslaught. It is inconceivable to me that the individual patient can ever be effectively treated when that treatment is based upon grouping and/or mass treatment dictated by monetary criteria or bureaucratic fiat. This "political" thinking will produce an average type of medicine with no incentive for reaching beyond that average.

The results of "political" thinking seen up to this time convince me that we must have more "medical" thinking in our political endeavors and less "political" thinking in our medical practices.

Jm Ingalls, M.D.

J. M. Ingalls, M.D.



pulse... of the doctor's wife

MRS. HAROLD KEEGAN, Editor

IALAC Explained at Confluence for Health

Dr. Wallace Wesley and Marcy Schwabenbauer conducted a morning workshop on *values* during the "Confluence for Health," November 12, in Chicago, sponsored by the Illinois State Medical Society and Auxiliary.

"IALAC" means "I am lovable and capable" and to explain how important the belief in our own self-worth is, Marcy told this story. Read it . . . then think about it in relation to your children and others near you . . . then read it again. I believe it will point up the fact that we should all be "*Goodfinders*" every day. Please take time to care and to consider others,—and *do* believe in your own worth as an individual.

Let's all wear an "IALAC" sign with confidence in 1976!

Millie Vickery, President, ISMS Auxiliary

"Each of us wears a sign. That sign says "I am lovable and capable." Sometimes things happen to my sign and the "I" drops out so I'm not very lovable but I am capable and I can produce. Or sometimes the 'c' drops out and all I have is 'I am', and that's unfinished. I don't know what I am. I sure would like to know. I feel certain we know lots of people who are in this state.

We each have our identity sign. Susan has her name sign, IALAC. I want to tell you a story about this little girl who is in junior high. Susan lives with her mother and father and her little brother who is six years old. The first thing she hears in the morning is her mother who says, "Will you get up? I'm sick and tired of telling you to get up. When are you going to learn to take care of your own alarm clock?" So part of Susie's sign drops away. Susan gets out of bed and goes to the bathroom. As she is ready to close the door her six year old brother puts his hand on the knob and says, "Hi, Slow Poke, I beat you." Another part of her sign goes. She goes down to the breakfast table where her father is reading the newspaper. He glances up and

says "Don't you have anything decent to wear? You look awful. What's the matter with you?" Susan goes to school and her teacher says to her, "Susie, we can count on you every single day for being late . . . every single day. We could set our clock by you." Another piece of Susie's sign goes. In Susie's third period class, the teacher says, "I would like to check the assignment." Susie gets out her paper and raises her hand, but the teacher calls on someone else. When the teacher asks a second question Susie raises her hand again, and the teacher calls on someone else. By the time the teacher asks the third question, Susie hesitates. The teacher notices and says, "I knew you didn't know it. You never have your homework done." Another piece of Susan's sign disappears.

At lunch time the kids say, "We don't want to play with you—you have B.O." There goes another piece of Susie's sign. She goes home from school and her mother says, "You would think you were the only one to use the telephone. You have been on it for 45 minutes. You are a selfish creature." Another piece of Susan's sign is torn off. Her father says, "I'm sick and tired of telling you to help your mother with the dessert and the rest of the dinner, . . . now get out to the kitchen and help." Another piece of Susie's sign is gone. She goes to bed with the little corner of her sign that was left tucked under her chin. She pulls up the covers and goes to sleep.

The next day Susie gets up and she has another sign. Everyday it is the same routine and treatment . . . somebody rips at her sign. So Susie starts ripping at other people's signs and everybody's hurting! Teacher says, "I told you yesterday I wasn't going to call on you anymore!" All through the day Susie hears, 'Slow poke, I beat you!' 'Late again!' 'No homework again!' 'We don't want to play with you!' 'Get off that phone!' 'Get up and help your mother!'

So she has only a tiny part of her sign left again. Every day what is left of her sign is smaller. Susie isn't feeling very good about herself these days.

Then one day there is a gentle knock at the door, and Susie knows its going to be different. Her mother says, "Susan, I should have told you this a long time ago. I've been doing a lot of thinking lately. I can't think of anybody I would rather have as a child than you. I want to tell you that I'm glad that you were sent into our family." Nothing happened to Susie's sign. Her brother says, "Go ahead, it's your turn; I have been first for two days." Susie's sign is intact. Her

father says, "I really like you in that outfit!" Her Spanish teacher tells her, "I appreciate the work you are doing." Her other teacher says, "I like having you here, Susan. I'm glad you are in my class." Her boyfriend says at lunch, "Hey, do you want part of my blueberry muffin?" After school her mother tells her, "Jane called and I told her you would call as soon as you came in." Her father says, "Thanks, Susie, for all the help you gave your mother with the dinner; I appreciate that." When Susie went to bed that night, her sign was round and full and she was feeling good and at home with herself. She could say 'I am lovable and capable.'

Doctors' Wives Have Multifaceted Program

The multifaceted program of the Illinois State Medical Auxiliary was reviewed by Mrs. Eugene Vickery, President, at the Tenth District Meeting held in Belleville on November 6th.

Also on the program was Mrs. John Ovitz, President-Elect, who reported on the recent AMA Auxiliary Fall Conference held in Chicago and conducted the district meeting.

Mrs. Earl Klaren, 2nd Vice President, explained the Project Bank and Mrs. Edward Szewczyk, 3rd Vice President, spoke on Community Health activities of the auxiliary.

The meeting was planned by Mrs. Frank Holman, Tenth District Councilor, who will serve another year as councilor. Mrs. Antonio Boba (Helena) of Mt. Vernon was elected Ninth District Councilor.

Mrs. Julian Buser, president of St. Clair County, welcomed the group to Belleville and invited members to attend the art show immediately following the meeting.

AMA-ERF sales were booming under the direction of Mrs. David Wiltsie, St. Clair County chairman. She has sold over 600 AMA-ERF purses since June, plus many other items. Last



AMA-ERF Purse Sales booming at Tenth District meeting. (Left to right) Mrs. Earl Klaren, 2nd Vice President, ISMS Auxiliary; Mrs. John Ovitz, President-Elect; Mrs. David Wiltsie, AMA-ERF Chairman, St. Clair County; and Mrs. Eugene Vickery, President, ISMS Auxiliary, do a little gift shopping at the AMA-ERF booth at the Tenth District Meeting in Belleville, Nov. 6.

June the St. Clair County Auxiliary won the national award for the county with the highest contribution per member.

The auxiliary members joined the Southern Illinois Medical Society for a luncheon and afternoon program.



Tenth District Meeting: (Left to right) Mrs. John Ovitz, President-Elect, ISMS Auxiliary; Mrs. David Wiltsie, AMA-ERF Chairman for St. Clair County; Mrs. Julian Buser, President of St. Clair County; Mrs. Edward Szewczyk, 3rd Vice President, ISMS Auxiliary; Mrs. Frank Holman, Tenth District Councilor; and Mrs. Paul Norbert, President of Illinois Academy of Family Practice Auxiliary.

Abstracts of Board Actions

(Continued from page 34)

3. Agreed to retain independent actuarial services for negotiating forthcoming rate increases in the professional liability program.

Task Force on Professional Liability

To aid Circuit Court Judge David Canel minimize the incidence of trial in some of the 1,500 cases pending in Cook County, the Task Force on Professional Liability will act as a clearinghouse for physicians who volunteer as panelists to review depositions and pertinent medical and hospital records and review qualifications of expert medical witnesses.

The Board referred to the Governmental Affairs Council the following Task Force legislative proposals with recommendation for introduction in the January session of the General Assembly:

- Community Standard and Expert Witness Rules—Require medical witnesses to be: (1) board certified in the area addressed at trial and (2) practicing in the defendant's community determined by HEW under P.L. 93-641. These rules are designed to eliminate the "professional witness" who travels around the country to testify in malpractice trials.
- Collateral Source Rules—Require plaintiff to submit to the jury a listing of all benefits of any kind already paid to him. The jury would not be required to deduct this amount from the award, but hopefully would take it into consideration when making its decision.
- Counterclaims—Allows the defendant to file a counterclaim for malicious abuse of the process of law or malicious prosecution if the malpractice claim is unjustified. The defendant must prove that a malpractice suit was undertaken improperly or without probable cause.
- Statute of Limitations—Prohibits suits more than 2 years from the date of alleged act, except that a minor under the age of six would have until his eighth birthday to file suit.

ICCME Funding for 1977

The Board will introduce a resolution at the next annual meeting urging continued funding of the Illinois Council on Continuing Medical Education by allocating \$10 of each member's 1977 dues. This will reduce the customary AMA-ERF contribution for each member by one half.

In a related action, the Board endorsed a resolution calling for the Department of Registration and Education to accept the AMA Physicians Recognition Award as meeting the requirements for the new mandatory continuing education requirement.

AMA Regional Meeting

Contingent upon approval by the Chicago Medical Society, ISMS will cosponsor an AMA Regional Scientific meeting in the fall of 1977.

Election of Third District Trustee

Upon recommendation of the Chicago Medical Society, Dr. Lawrence Hirsch was elected to fill the unexpired term of Dr. Samuel Cloninger on the Board of Trustees.

ISMS Committee Expenses

The Board established the following policy for reimbursement of expenses in connection with ISMS council and committee meetings:

If ISMS appoints a person to a council or committee as an individual for the expertise he can bring to ISMS, the Society should pay authorized travel expenses incurred in attending meetings. However, if an individual is appointed as a representative of a particular organization, ISMS should not pay his expenses.

Constitution and Bylaws

With the approval of the Board of Trustees, the Committee on Constitution and Bylaws will present for consideration of the 1976 House of Delegates amendments that would allow AMA delegates to take office in July of each year, rather than the first of January, and will delineate some of the delegation's responsibilities and functions.

The Board also approved a plan for removing the temporary status of District 1-A on April 5, 1977, if ordered by the House of Delegates.

It also authorized the committee to meet with representatives of appropriate county medical societies to clarify dues delinquency dates in the bylaws.

Bicentennial History of Medicine

The Publications Committee was authorized to continue developing materials for the Illinois Medical Journal's recognition of the Bicentennial. Appropriate funding will be requested of the Finance Committee. The Board also authorized the Publications Committee to provide space in IMJ for announcements by IMPAC on a space-available basis.

Health Testing and Screening

The Board reaffirmed its previous position on the necessity for local medical society participation in the development and implementation of screening programs. Results of such testing programs should be reported only to the patient's personal physician for interpretation.

Informed Medical Consent

The Board endorsed and referred to the Governmental Affairs Council a proposed medical consent law which could be introduced in the General Assembly as an alternative to HB 1540 if it appears that a medical consent law will be passed. HB 1540 is undesirable since it would require physicians to inform a patient of every possible consequence conceivable and chances of success of a medical treatment or procedure before it is undertaken.

Definition of Death

Legal counsel was authorized to develop a proposed statute incorporating the following criteria usually accepted in the clinical determination of death: (A) Bilateral dilatation and fixation of pupils; (B) Absence of all reflexes; (C) Cessation of respiration without mechanical assistance; (D) Cessation of spontaneous cardiac function; or (E) A flat electroencephalographic tracing (in the absence of barbiturates or other strong sedative effect).

Notwithstanding the above action, the Board's position is that death with dignity legislation is unnecessary and inappropriate and that ISMS should do nothing to introduce this type of legislation. However, if any bills of this type are proposed by other groups, ISMS will take an active consultative role to guarantee the availability of appropriate medical care and their acceptability to the medical profession.

Emergency and Disaster Care

The Board approved for submission to the AMA a resolution urging the federal government to restore the disaster preparedness program that was discontinued 18 months ago.

In a related action, representatives of state and county police agencies will be invited to a joint meeting of the ISMS Committee on Emergency and Disaster Care and the Council of Emergency Care Organizations. Purpose of the meeting is to clarify who has authority over the medical care and transportation of victims at the scene of an accident and to define this authority by legislative action.

Alcoholism

To aid implementation of the Alcoholism and Intoxication Treatment Act, ISMS will urge the House Human Resources Committee to incorporate the following changes by amendment:

- A. Change the term "Non-medical" to "Non-hospital," wherever it appears in the Act;
- B. Identify that the diagnosis of alcoholism must be made by a physician, but the setting need not necessarily be in-hospital;
- C. Recommend that any community facilities developed as triage units for review of inebriates be accredited or licensed;
- D. Urge a change in attitude on the part of those charged with implementation of the Act, so as to emphasize treatment needs rather than fighting about who is going to do what, where;
- E. And, also offer continuing discussion and dialogue.

In a related action, the Board authorized development of a program to be conducted during the 1976 annual meeting utilizing the \$500 in grants received by ISMS and not used in 1975 for alcoholism education programs.

Marijuana

An ISMS position paper on marijuana will be developed based on the following premises:

1. Analysis of research to date cannot identify conclusively the degree of harm, medically or psychologically, inherent in the use of marijuana.
2. Current legal strictures and complications relating to marijuana use seem to be largely unrelated to the medical effects of the drug itself.
3. We cannot accept any form of legalization, and a strong emphasis placing a negative value on use must be identified. In today's society, decriminalization of possession of small quantities for personal use may be realistic and may be equally effective in controlling use and avoiding a challenge to potential users. Harsh penalties associated with this do nothing and stigmatize many. No medical arguments are offered in support of this position, but it may be pragmatic.

Acupuncture

The Board adopted the following position on acupuncture and referred it to the Governmental Affairs Council for the purposes of introducing appropriate legislation:

"The performance of acupuncture in this state, alone or in conjunction with other forms of traditional, oriental medicine, shall be performed only by a person holding a license to practice medicine in all of its branches issued pursuant to the 'Medical Practice Act' approved June 30, 1923, as amended, or dental surgery or dentistry under 'an act to regulate the practice of dental surgery and dentistry in the state of Illinois, and to repeal certain acts therein named' approved June 11, 1909, as amended."

Controlled Substances

ISMS members will be notified of the need to sign all orders for Schedule II substances for in-hospital patients as soon as possible after entering the order. Hospital chiefs of staff and county medical societies will be notified of this action.

The Board directed that a letter be sent to the Dangerous Drugs Commission questioning the merit of including all Schedule II substances as "designated products" thus mandating that all amphetamines and some barbiturates could be prescribed only on triplicate blanks.

Medicaid and Psychiatric Illness

On recommendation of the Council on Mental Health and Addiction, the Board approved the following statement:

- A. That ISMS support the principle of unlimited third-party coverage of psychiatric patients under Medicaid, but recognizing the fiscal problems of IDPA, is willing to accept a 25 day maximum limitation on hospital stay, with a 45 day maximum limitation on any given patient per fiscal (calendar) year.
- B. That ISMS support the inclusion of psychiatrically ill Medicaid patients under HASP mechanisms, using the 50th percentile of the August 18, 1975, PAS LOS statistics initially, subject to change based upon utilization experience (after six months HASP experience), with the understanding that usual and customary fees will be recognized.

Community Mental Health Project

The Board of Trustees supported the principle of a proposed community mental health project of the Jane Addams School of Social work at the University of Illinois, but did not endorse the program itself.

PAP Smear Test for Minors

The Board adopted a position that when a minor presents herself for medical treatment or advice on VD, birth control and/or family planning, a physician may also administer a PAP smear test without parental consent.

Incidents Involving Hazardous Materials

ISMS and the Illinois Hospital Association will inform physicians and hospitals of emergency phone numbers that offer information on dealing with hazardous chemical materials.

Compendium of Undergraduate Externships

The Advisory Committee to Medical Students was authorized to publish a compendium of undergraduate externships. Funds, not to exceed \$1,000, will be made available from the one-dollar assessment for liaison with medical students.

Attendance at AMA Convention

The Board approved paying the travel expenses of two medical students and two intern/residents attending the AMA Clinical Convention in Honolulu. Funds are available through the dollar assessment.

In a related action, the Board approved payment of travel expenses for the student delegate and alternate and intern/resident and alternate attending out-of-town meetings of the ISMS House of Delegates.

Children and Family Services

The Illinois Department of Children and Family Services will be notified of the need for a physician to have the authority and responsibility for the medical care of his patients. While the Department's authority over its wards is acknowledged, blanket regulations requiring prior approval of psychotropic drugs is an unwarranted interference. Suspected cases of overuse of these drugs should be referred to the appropriate county medical society for review.

General American Insurance Company

The Director of the Illinois Department of Insurance will be requested to investigate an apparent breach of contract in Madison County, where it is alleged

that the General American Insurance Co. is not fulfilling its contract with the union to pay usual, customary and reasonable fees for medical services to employees of the LaCledde Steel Co. The steel workers union and the company will be informed of this action and the ISMS offer to assist where needed.

Membership Brochure

The Board authorized the Public Relations Council to publish a brochure in 1976 in lieu of the Members Handbook it has been distributing to all new members. The brochure will be available for use by county medical societies in their recruitment efforts.

Retirement Programs

ISMS will discontinue sponsorship of its retirement programs for members. Based on the recommendations of a professional consultant, the Insurance Committee recommended that the small number of participants in these programs did not justify continued sponsorship. Participants will be notified of the reasons for this action.

Drug Manual

The following drugs were approved for inclusion in the Drug Manual: Brethine, Bricanyl, Bronkosol, Bronkometer, Norgesic, Norgesic Forte, Quinamm, Doxidan and Roniacol Timespan.

The Committee on Drugs and Therapeutics recommended strong opposition to the new IDPA form 1280 for dispensing non-prescription drugs.

Illinois Foundation for Medical Care

IFMC President Dr. Allan Goslin informed the Board that the Foundation has:

1. Approved in principle HASP sub-contracts with the Southern Illinois Medical Review Organization and the Southwestern Illinois Medical Review Organization.
2. Directed its Committee on Admissions Criteria and Length of Stay Criteria and the Committee on Quality of Care to consider the AMA criteria as the basis for IFMC guidelines.
3. Directed that review of psychiatric in-patient admissions to approved facilities be considered as a function of HASP.
4. Agreed to proceed with medical care evaluation studies under HASP to study the appropriateness of admissions for T & As, hysterectomies and URI without strep.
5. Amended the IFMC bylaws to establish that the Foundation's individual administrative members (ISMS Board members) will henceforth elect the 21 directors of the IFMC Board.

National Legislation

The Board of Trustees went on record as opposing the Long-Ribicoff Bill in its present form. However, because it believes some form of catastrophic insurance coverage is needed, the Board will urge AMA to reevaluate its position on catastrophic coverage and study the feasibility of an acceptable proposal, embodying the same administration and financing as provided for in the AMA NHI bill. Senator Percy will be asked to reconsider his position on the Long-Ribicoff proposal.

Nurse Practice Act

Drs. Fred White, Lawrence Hirsch and William Lees were nominated for positions on a new Board of Opinions being formed under the Nurse Practice Act. The Board will render opinions on diagnostic and therapeutic procedures in which nurses may engage.

Summary of Actions of the House of Delegates

November 11-12, 1975

75N-1 Adopted as Amended Disapproval of IDPA Form 1280

RESOLVED, that the Illinois State Medical Society disapproves the use of the form DPA 1280; and be it further

RESOLVED, that the Department of Public Aid be requested to eliminate this form as unnecessary and cumbersome; and be it further

RESOLVED, that ISMS urge its members to discontinue using the form within 60 days.

75N-2 Rejected Establishment of Foundation for Counter-Suits in Professional Liability Cases

Board of Trustees should establish foundation to bring counteraction against plaintiffs and their attorneys bringing such suits against Illinois physicians. *Rejected following testimony that counter-litigation has already been considered by Task Force on Professional Liability.*

75N-3 Rejected Illinois Physicians Union

ISMS leadership should use Illinois Physicians Union as its collective bargaining arm and develop liaison with this organization to help in those areas where union activities would be beneficial. *Considered with Resolutions 75N-4, 75N-5, 75N-6, 75N-7, 75N-9, 75N-11, 75N-20 and rejected.*

75N-4 Rejected Public Aid

ISMS should support efforts of Illinois Physicians Union to negotiate solution of problems with Public Aid Department and to negotiate a fee schedule for physicians rendering care to public aid recipients. *Considered with Resolutions 75N-3, 75N-5, 75N-6, 75N-7, 75N-9, 75N-11, 75N-20 and rejected.*

75N-5 Rejected Negotiation with IDPA and "Withdrawal of Service"

ISMS should establish a collective bargaining unit to negotiate fees with the Department of Public Aid, solicit "withdrawal of service" notices from all members to be used at the discretion of the Board of Trustees, and to monitor usual, customary and reasonable fees continuously. *Considered with Resolutions 75N-3, 75N-4, 75N-6, 75N-7, 75N-9, 75N-11, 75N-20 and rejected.*

75N-6 Rejected Formation of an ISMS Committee for Collective Bargaining

ISMS should establish a Collective Bargaining Committee empowered to negotiate usual, customary and reasonable fees for members. *Considered with Resolutions 75N-3, 75N-4, 75N-5, 75N-7, 75N-9, 75N-11, 75N-20 and rejected.*

75N-7 Rejected Williamson County Public Aid Collective Bargaining

ISMS should support the Illinois Physicians Union attempt to become the collective bargaining agent for members of the union in Williamson County and support a work action there if the union is not recognized as collective bargaining agent. *Considered with Resolutions 75N-3, 75N-4, 75N-5, 75N-6, 75N-9, 75N-11, 75N-20 and rejected.*

75N-8 Substitute Adopted Licensing Examinations for Chiropractors

RESOLVED, that the Illinois State Medical Society should investigate the licensing of chiropractors and if it is determined that chiropractors are taking a licensing exam other than that required by statute, the Illinois State Medical Society may bring suit against the government of-

ficials responsible for such actions; and be it further

RESOLVED, that financing of such suit to come from dues; and be it further

RESOLVED, the Board of Trustees report on the progress of this investigation at the 1976 annual meeting of the House of Delegates.

75N-9 Rejected
Revision of ISMS Constitution and Bylaws to Provide for Collective Bargaining

ISMS bylaws should be revised to facilitate collective bargaining activities and interim bargaining activities delegated to Illinois Physicians Union. *Considered with Resolutions 75N-3, 75N-4, 75N-5, 75N-6, 75N-7, 75N-11, 75N-20 and rejected.*

75N-10 Substitute Adopted as Amended
Department of Mental Health and Developmental Disabilities

RESOLVED, that the Illinois State Medical Society support appropriate revision of the proposed Five-Year Plan of the Illinois Department of Mental Health & Developmental Disabilities so as to assure that an adequate plan is adopted for providing quality mental health care, and retain and not exceed the present legal scope of the Department for those persons with mental disorders referred, committed or transferred to the Department; and be it further

RESOLVED, that ISMS adopt the principle that public patient care monies should be transferred with the patient and encourage IDMHDD to adopt this principle in all present and future planning for patient care.

75N-11 Adopted as Amended
IFMC as Negotiator for Government Health Programs

RESOLVED, that this House of Delegates call for immediately implementing Resolution 75A-57 and its following resolves:

1. Authorize a contract with the Illinois Foundation for Medical Care to establish a plan for dealing with the problems of physicians with respect to payments from the Illinois Department of Public Aid and that the Foundation employ skilled professional negotiators on a full-time basis to represent all physicians individually in negotiation with IDPA, regarding fees and payments, especially in matters involving the amount and payment of fees for services to welfare patients.

2. That the ISMS Board of Trustees be instructed to utilize IFMC as a negotiator and agent for all statewide government health care programs, both federal and commercial third party carriers without preempting contracts negotiated by any affiliated local FMCs.

3. That ISMS members be asked to submit to IFMC such complaints as they may have, supported by such documentary evidence as is available, with respect to matters involving the third party carrier.

4. That all contracts negotiated include the concept of freedom of choice for physicians and patients, fee-for-service rendered on the basis of usual and customary charges.

75N-12 Withdrawn
Rejection of Collective Bargaining or Factoring Corporation Endorsement

75N-13 Substitute Adopted
Protective Medical Association of Illinois

RESOLVED, that the House of Delegates support, in principle, the purposes and objectives of the Protective Medical Association of Illinois as outlined in the original resolution.

75N-14 Adopted
Principle of Free Choice

RESOLVED, That the Illinois State Medical Society House of Delegates reaffirm the principle of free choice, on behalf of both the patient and the physician, and so inform the Illinois Department of Public Aid.

75N-15 Adopted
Medical Disciplinary Board

RESOLVED, That if the governor's veto of medical disciplinary legislation is sustained, ISMS will support efforts to re-introduce a bill to establish a medical disciplinary board with power to investigate and authority to suspend, revoke or in other ways limit a practitioner's license.

75N-16 Substitute Adopted as Editorially Changed
Illinois Department of Public Aid

RESOLVED, that the House of Delegates reaffirm its policy that fees be paid for medical services using Edition III, or a more current edition, of Current Procedural Terminology; and be it further

RESOLVED, that we strongly favor the principle of full funding by all third party carriers, based on current usual, customary and reasonable concepts, including Medicaid, Medichuk and indigent-patient Medicare reimbursement.

**75N-17 Adopted as Editorially Changed
Avoiding Malpractice Suits**

RESOLVED, that the Illinois State Medical Society engage cooperative members of the legal profession to develop, produce and promote programs to be presented throughout the state on methods of how to avoid malpractice suits, this to be done by symposia, seminars, recorded tape cassettes, etc.

**75N-18 Adopted as Editorially Changed
Mandatory Continuing Medical Education**

RESOLVED, that the policy established in substitute resolution 73M-5 be reaffirmed; and be it further

RESOLVED, that the ISMS prepare and submit to the Department of Registration and Education a proposal for the establishment of requirements of the AMA Physician Recognition Award as fulfilling the mandate of the Act; and be it further

RESOLVED, that a copy of substitute resolution 73M-5 and this resolution accompany the proposal.

**75N-19 Substitute Adopted as Amended
Special Assessment**

RESOLVED, that in lieu of Substitute 75A-26, the House of Delegates levy a mandatory assessment of \$75.00 on each regular full-dues paying member standing on the rolls December 31, 1975 and anyone becoming a regular full dues paying member during 1976; and be it further

RESOLVED, that this assessment shall be made a part of the payment required for regular membership during 1976; and non-payment should result in the individual being considered delinquent and therefore subject to subsequent loss of membership; and be it further

RESOLVED, that two-thirds of the funds accruing from this assessment are to be utilized by the Board of Trustees to further the plans and programs developed by the Task Force on Professional Liability; and be it further

RESOLVED, that one-third of the funds accruing from this assessment are to be utilized by the Board of Trustees as a loan or donation to

the IFMC, whichever is most proper from a legal standpoint, to be used specifically in initiating its negotiating activities.

**75N-20 Rejected
Creation of a Negotiating Unit**

The Board of Trustees should create a not-for-profit corporation, under the ISMS umbrella, to function as a negotiating unit for dealing aggressively with the conditions of service and terms of payment under government reimbursement programs. *Considered with Resolutions 75N-3, 75N-4, 75N-5, 75N-6, 75N-7, 75N-9, 75N-11 and rejected.*

**75N-21 Adopted
Malpractice Insurance Coverage as
Requirement for Hospital Staff Privileges**

RESOLVED, That if a physician is otherwise qualified to serve on the hospital medical staff, his privileges should not be suspended as a result of a unilateral decision by a malpractice insurance carrier, but he should be supported by the medical staff in an application for such insurance; and be it further

RESOLVED, That if a physician is otherwise not qualified to serve on the hospital medical staff such determination should be made by the medical staff rather than by an insurance carrier; and be it further

RESOLVED, That hospital staffs whose constitution or bylaws require evidence of malpractice insurance coverage for staff membership take the necessary steps to amend these bylaws to adapt to the above contingency.

**75N-22 Adopted
Good Samaritan Consideration for Back-Up
Specialists for Emergency Rooms**

RESOLVED, That the Illinois State Medical Society, through its legislative efforts, seek legal protection for emergency room back-up physicians and surgeons from the legal threats, harassments, and annoyances which arise from our current medical-legal structure and contribute to the medical malpractice confrontation now facing this society.

**75N-23 (See Resolution 75N-10)
Opposition to IDMHDD Five-Year Plan**

Substitute adopted for Resolutions 75N-10 and 75N-23.

**75N-24 Adopted as Amended
Organization of Captive Insurance Company**

RESOLVED, that the Board of Trustees be authorized to immediately carry out all of the necessary steps to plan, organize and incorporate a captive carrier of suitable form (stock, mutual, reciprocal or trust) capable of underwriting the professional liability insurance needs of physicians in Illinois; and be it further

RESOLVED, that the Board of Trustees be authorized to solicit subscriptions to capitalize and otherwise activate the company when, in its opinion, there ceases to be a market for professional liability insurance for the physicians of Illinois under acceptable terms and conditions.

**75N-25 Substitute Adopted as Amended
Physician Participation in Medicaid Program**

RESOLVED, that the Illinois State Medical Society affirm the policy that proper withdrawal of individual ISMS members from the Medicaid and Medichex programs will not be considered unethical, unprofessional or dishonest.

**75N-26
Medical Services Finance or "Factoring"
Companies**

**75N-27
Parity in Public Aid Vendor Payments**

**75N-28
House Bill 2832**

On a motion to reconsider, the following was agreed upon:

"that the House be on record as agreeing in principle with the intent of Resolutions 75N-26, 75N-27 & 75N-28 and refer the resolutions to an Ad Hoc Committee of the Board of Trustees, the Committee to include Drs. Carell Hutchinson and Dr. Finley Brown, and report at the next Board meeting."

**75N-29 (See Resolution 75N-16)
Full Funding by all Third Party Carriers**

Substitute adopted for Resolutions 75N-16 and 75N-29.

**LOW-COST
GROUP
INSURANCE
ANOTHER
ISMS
MEMBERSHIP
PRIVILEGE**

FOR INFORMATION,
ASSISTANCE
& DETAILS CONTACT:

Administrators:

PARKER, ALESHAIRE & COMPANY
ESTABLISHED 1901
Insurance

9933 N. Lawler Avenue
Skokie, Illinois 60076
Phone: 312-679-1000

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THE BASIC MAJOR MEDICAL EXPENSE PLAN ● In or out of Hospital Benefits up to \$25,000.00 per Disability. ● Up to \$100.00 Daily Hospital Room and Board maximum. ● Subject to choice of deductible and 80% coinsurance.

EXCESS MAJOR MEDICAL PLAN ● Provides up to \$250,000 for Medical Expenses. ● Supplements any Basic Major Medical Plan and has a \$25,000 deductible. ● Low group rates. ● Truly catastrophic coverage.

Actions on Resolutions

Special Session House of Delegates

November 11-12, 1975

<i>Number</i>	<i>Introduced By:</i>	<i>Subject</i>	<i>Action</i>
75N-1	E. C. Bone, M.D.	Disapproval of IDPA Form 1280	Adopted as amended
75N-2	Cyril C. Wiggishoff, M.D.	Establishment of Foundation for Counter-Suits in Professional Liability Cases	Rejected
75N-3	George Lagorio, M.D.	Illinois Physician Union	Rejected
75N-4	George Lagorio, M.D.	Public Aid	Rejected
75N-5	Chas. J. Jannings, M.D.	Negotiation with IDPA and "Withdrawal of Service"	Rejected
75N-6	Chas. J. Jannings, M.D.	Formation of ISMS Committee for Collective Bargaining	Rejected
75N-7	George Lagorio, M.D.	Williamson County Public Aid Collective Bargaining	Rejected
75N-8	James Sutherland, M.D.	Licensing Exams for Chiropractors	Substitute Adopted as Amended and Report back to 1976 H of D
75N-9	Chas. J. Jannings, M.D.	Revision of ISMS Constitution & ByLaws to Provide for Collective Bargaining	Rejected
75N-10	Morgan Meyer, M.D.	Dept. of Mental Health & Developmental Disabilities	Considered with 75N-23—Substitute Adopted as Amended
75N-11	Robert J. Becker, M.D.	IFMC as Negotiator for Government Health Programs	Adopted as Amended
75N-12	Robert J. Becker, M.D.	Rejection of Collective Bargaining or Factoring Corporation Endorsement	Withdrawn
75N-13	George Lagorio, M.D.	Protective Medical Association of Illinois	Substitute Adopted
75N-14	Morgan Meyer, M.D.	Principle of Free Choice	Adopted
75N-15	James Campbell, M.D.	Medical Disciplinary Board	Adopted
75N-16	William B. Frymark, M.D.	IDPA	Considered with 75N-29—Substitute Adopted as Editorially Changed
75N-17	Theodore Grevas, M.D.	Avoiding Malpractice Suits	Adopted as Editorially Changed
75N-18	Jos. L. Bordenave, M.D.	Mandatory CME	Adopted as Editorially Changed

<i>Number</i>	<i>Introduced By:</i>	<i>Subject</i>	<i>Action</i>
75N-19	Jos. L. Bordenave, M.D.	Special Assessment	Substitute Adopted as Amended
75N-20	Jos. L. Bordenave, M.D.	Creation of a Negotiating Unit	Rejected
75N-21	David S. Fox, M.D.	Malpractice Insurance as Requirement for Hospital Staff Privileges	Adopted
75N-22	Wayne Leimbach, M.D.	Good Samaritan Consideration for Back-up Specialists for Emergency Rooms	Adopted
75N-23	Glen Tomlinson, M.D.	Opposition to IDMHDD Five-Year Plan	Considered with 75N-10—Substitute Adopted as Amended
75N-24	J. L. Bordenave, M.D.	Organization of Captive Insurance Co.	Adopted as Amended by Reference Committee
75N-25	J. L. Bordenave, M.D.	Physician Participation in the Medicaid Program	Substitute Adopted as Amended
75N-26	George Lagorio, M.D.	Medical Service Finance or Factoring Companies	Considered with 75N-27 & 28
75N-27	Marlin Meisenheimer, M.D.	Parity in Public Aid Vendor Payments	Considered with 75N-26 & 28
75N-28	Finley Brown, M.D.	H.B. 2832	Considered with 75N-26 & 27 Referred to B of T Ad Hoc Committee to include Drs. C. Hutchinson & F. Brown and report at next Board Meeting
75N-29	Finley Brown, M.D.	Full Funding by all Third Party Carriers	Considered with 75N-16—Substitute Adopted as Editorially Changed

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3. *Physical and Physiological Data*—an age-modified physical examination with appropriate laboratory evaluation
4. *Psychological Data*—RoCom Health History Questionnaire, Life Stress Questionnaire, Depression Index
5. *Prospective Medicine Data*—Health Hazard Appraisal Chart: An assessment of a person's risk of acquiring the morbidity or mortality of a particular disease process at some point in the future.

Every patient over 25 enrolled at the Family Practice Center is encouraged, and ultimately required, to participate in this data gathering process. The staff feels that this extensive evaluation of each patient helps to implement the Center's goals of providing comprehensive and continuous health care, of providing high quality, problem-orientated medical education, and of carrying out research-oriented activities.

The Health Hazard Appraisal has been adopted as data base information dealing with the prospective medicine aspects of patient care, medical education, and research. The Health Hazard Appraisal Chart is used to assess significant amount of morbidity and mortality for a patient's particular age, sex, and race. Pre-morbid conditions such as obesity and hypercholesterolemia in relation to arteriosclerotic heart disease or hypertension in relation to stroke, when assigned a significant risk factor, become part of the patient's problem list.

In addition to the HHA's contribution to a meaningful problem list, the HHA chart permits the Patient Care Team to view the individual as an organism of potential problems. Thus, the "healthy" as well as "unhealthy" person becomes the concern of the primary care specialists. His age, sex, and race identify him in terms of disease or injury most likely to affect him, and from this perspective he can be managed in his "healthy" condition by periodic assessments of his health risks.

This data base information is also useful for patient education. By providing information

which allows the patient to deal with the question: "What must I do to stay well?", the patient and the health care team are encouraged to actively participate in an effort to maintain health. The Health Hazard Appraisal provides concrete data which adds a motivational component to patient education. The patient can identify with his potential problems more easily when they are presented in this objective fashion. The meaning of health risk is clearer when related to appropriate age, sex, and race mortality statistics. Lowering one's Health Hazard Appraisal age becomes an identifiable goal toward which to strive.

Discussion

The addition of Health Hazard Appraisal information in the routine data-base collection can be viewed as aiding both the physician and the patient. For example, if the health care team is cognizant of age, race, and sex factors as predictors of specific pathology (e.g. myocardial infarctions, ASHD, etc.) they will be put in the perspective of viewing individuals as organisms of potential risk. Physical examinations, as well as general health care, can then be "tailor-made" to the specifications of these risk factors. Further, results from an HHA evaluation can add a dynamic component to the routine data-base by providing guidelines for a lasting state of good health, that is, it can aid the patient.

Since today's society as well as the training of its physicians is "life" orientated and, for the most part, the concept of "death" is not dealt with until it is eminent, it is contended that the HHA can lend itself in facilitating the visualization of the probability of death from certain diseases when at the time of examination there is no overt evidence of such a disease. Further, the Health Hazard Appraisal is not intended to be presented as an answer to longevity, but rather a tool which can support the idea that medicine can be practiced in terms of the strengths of probabilities as well as physical diagnoses. ◀

(To be continued next month.)

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Testicles in Young Boys

Beginning at age 4, the periodic examination of the boy should include routine inspection and palpation of scrotum and testes as well as penis. The pediatrician should not, however, be lulled into the idea that once the testes have been in the sac and then moved upward, they will always return to their normal position; pediatric urologists have warned that this is not always true. Every physician who treats sports injuries knows that a testicle can retract during a ball game and during judo exercises and "get stuck" in the canal. Sometimes a misdiagnosis of appendicitis is made, resulting in unnecessary surgery. Therefore, examination of the scrotal sac and testes should include observations of left and right testicular retraction not only when the patient is lying prone, but also in knee-chest, kneeling, squatting, and supine positions. (Anita I. Bell: "Psychologic Implications of Scrotal Sac and Testes for the Male Child." *Clinical Pediatrics* (Oct) 1974, pgs. 838-847.)

BLUE SHIELD REPORT



FOR *Illinois Physicians*

Claim Information Complete? Recheck for Errors and Omissions

By reviewing the information contained in the Blue Shield Physician's Service Report form you are submitting, you may find errors or omissions that were overlooked that would delay payment of the claim. Please double-check all items:

(1) *Group Number and Member Identification Number:* Whenever possible, copy the Group and Membership numbers exactly as they appear on the Blue Shield Membership Identification card. Examine the card to be sure it is current.

(2) *Patient's and subscriber's Name:* Spelling and legibility are important. Please print or typewrite the complete first and last name of the patient and subscriber. Then double-check the spelling from the membership card.

(3) *Entries for Sex, Age, Marital Status of Patient and Relationship of Patient to member* must be completed.

(4) *Is the Address Complete?* Use the full line for subscriber's address: street, city, zip code.

(5) *If Accident/Medical Emergency, Give Date:* This information is often omitted, as well as where the accident or medical emergency happened.

(6) *Was it a Fracture or Dislocation?* Box should

be completed. Under services furnished for fracture, separate the charges by type of reduction and X-rays taken; whether it was simple or compound fracture; which bone was involved; whether manipulative reduction was performed or immobilization only.

(7) *Is it a Workman's Compensation Case?* Please advise by completing box.

(8) *Complete the Data on Where Service Was Rendered:* Hospital inpatient; outpatient; home; other.

(9) *Inhospital Medical Care.* Always give admission and discharge dates as well as the *name of the hospital*.

(10) *Does Patient Have Other Group Insurance?* We must have a reply to determine whether coordination of benefits exists.

(11) *Diagnosis:* Please give sufficient description; also use standard nomenclature in describing a surgical procedure if an operation is performed.

(12) *Itemize Fees and Services:* Give specific dates of services personally rendered by you, description of service performed and fee charged for each service. Also indicate whether or not fee has been paid by the patient.

Remember to complete the service report with your signature and date and submit it to us as promptly as possible.

Help Us Keep Your Name and Address File Current and Accurate

Whether you are a new physician starting practice, one planning to relocate or if you join a group or service corporation, please notify us—Health Care Service Corporation—so we can keep your file as accurate and current as possible. Blue Shield is reviewing all the required information in our files. We need to hear from you especially under these circumstances:

(1) *If you are a newly licensed physician, starting your practice in Illinois, please advise us so we may assign you a physician identification number for our Blue Shield file:* We need your name, office address, state license number, Social Security number, and your specialty. Tell us also whether you intend to practice as a member of a professional group, and the name of the group. This information is necessary to supply you with the properly imprinted Blue Shield "Physician's Service Report" forms.

If you are newly licensed or have recently relocated in Illinois and are unfamiliar with Blue Shield procedures, call or write our Professional Relations Department. A Representative assigned

to your area will contact you and provide you and your medical assistant with information and materials.

(2) *Are you changing the location of your office or adding a new location or locations?*

Please advise us three weeks in advance of the effective date of your address change. This will allow us time to make the necessary change and deliver your preprinted forms.

Please give us your present office address; your new office address; your identification code number; city, state, zip code; and the **EFFECTIVE DATE OF THE ADDRESS CHANGE**. The latter is important so we know when to send your new forms.

Send this information to Health Care Service Corporation, 233 North Michigan Avenue, Chicago, Illinois 60601. When you receive new imprinted forms, please destroy the old forms.

If you plan on *forming* a group, please write or call our Professional Relations Department for assistance. One of our Representatives will contact you to obtain the information we need to assign the group a *special code* and prepare imprinted "Physician's Service Report" forms. All claims should be submitted on these imprinted and coded report forms.

ASK BLUE SHIELD

. . . ABOUT MEDICARE

ITEMIZATION OF ALL CHARGES

Itemizing all charges by listing the date of each service, place of service, description of each service, whether surgical or medical, the nature of the illness or injury and charge for each service should be shown on the SSA-1490 Request for Medicare Payment form or billing statement when submitting the claim.

A bill for example that includes several office visits, plus inpatient medical care, should list the date and charge for each visit separately from the dates and charge for the inpatient medical care.

Itemization of specific charges requires listing the charges of each specific service included in an overall charge. An example would be a charge for an office visit during which a complete blood count and X-ray were taken. The specific fee should be shown for the complete blood count and X-ray, plus the charge for the office visit.

Always indicate where the laboratory service was performed. If the tests were provided by an independent laboratory, the name of the laboratory must be shown on the claim. When the tests were performed in the physician's office, a statement should be made to that effect, i.e., "tests done in this office" or "own office" and indicated in Item 7B of the 1490 form or on the billing statement.

For inpatient visits, the charge should show the number of days the patient was visited and the charge for each day. If the charge for the initial visit exceeds that of subsequent visits, the difference in the amount charged must be shown.

If the services were performed in a clinic or other group setting, a claim (1490 or bill) should reflect which specific doctor performed the service.

Also be certain that the beneficiary or his representative have signed the 1490 in Item #6.

Please review the claim for completeness before submitting it to the carrier.

Diagnostic Guidelines Broadened for Approval of Long-Term EKG Monitoring

New coverage guidelines issued by Medicare broaden the circumstances for which long-term EKG monitoring is approved as a diagnostic procedure under Part B services. The procedure is also referred to as long-term EKG reporting, 24-hour electrocardiography and dynamic electrocardiography.

It permits the physician not only to detect but

also to classify various types of rhythm disturbances and wave-form abnormalities and note the frequency of their occurrence during a patient's daily activities. Although a period of up to 24 hours would normally be considered adequate to detect most transient arrhythmias and provide essential diagnostic information, longer periods of monitoring may be approved when the medical necessity is shown to exist by the physician.

Longer Assessments

In addition to the shorter-length procedures, the guidelines also cover: the assessment of patients with coronary artery disease; when instituting anti-arrhythmic drug therapy, evaluating response to the drug and dosage, and discontinuance of medication; correlation of cardiovascular disease symptoms with evidence of ST-segment abnormalities; monitoring to identify patients with high risk potential of dying following an acute myocardial infarction; detecting an increase or new type of arrhythmias in patients with known cardiovascular problems after they engage in higher levels of activity to determine treatment.

Each patient receiving long-term EKG monitoring should be evaluated completely before a diagnostic study is made, including medical history and physical examination. The procedure should also be documented for the Part B Medicare carrier as are other EKG services, X-ray and laboratory procedures.

No separate charge for the rental or purchase of the recording device is provided by Medicare, since the item is not considered durable medical equipment. It is considered a component of the diagnostic system and should be considered in the total charge for the service.

Physicians should submit the claim to the Part B Medicare carrier on either the 1490 Request for Medicare Payment form or billing statement.

New Laboratory Certified

The Social Security Administration has certified the following laboratory for participation in the Medicare program for serology, chemistry and hematology services:

Jefferies Clinical Laboratory
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Chicago, Illinois 60649

Provider Number: 14-8299

Effective Date: November 6, 1975



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Editorials



The Wrong Perspective

Two of the biggest hoaxes ever perpetrated by Congress on the American people occurred when they ruled that tobacco was an agricultural product and alcohol a food. This was unscientific and dishonest, but it was the only way our Congressional leaders could keep these products out of the jurisdiction of the FDA. Meanwhile the FDA goes on its merry way taking many innocent products, such as cyclomates, and many other harmless substances off the market to protect the public from "dangerous drugs."

The FDA is more restrictive than protective. A side reaction of a drug seems more important to them than any good or beneficial effect it might have. This has led to delays in accepting many products used elsewhere with beneficial results. These regulations have cost the American people in money and potentially good therapies. However, the FDA does deserve credit for getting rid of quackery (excepting Krebiosa in this state).

But the FDA lacks the proper health perspective to handle our greatest killers and many of our patients are totally confused by their actions. For years alcohol and tobacco have killed more people and done more damage than all other drugs combined. We should constantly remind our patients of this fact. In addition many complain of the high cost of medical care, yet the public spends more money on their "little vices" than on doctors and drugs combined.

Alcohol and tobacco are two of the most addictive and toxic substances used by man. The exact toll of alcohol is not known because it is seldom mentioned on death certificates. Cirrhosis of the liver is the fifth leading cause of death for men in the age group 25 to 64. Fifty percent of all automobile fatalities have a high blood alcohol

level. Since the total annual death rate on the highways is 50,000, this means that alcohol plays a role in 25,000. To this we add the role of our booze in cancer of the esophagus, neurotoxicity of the nervous system and trauma from falls and other accidents. It also lowers resistance to infection.

The social economic and legal implications are also tremendous. Yet our government persists in labeling these as foods or agricultural products rather than drugs. In fairness to the government, they have found that it is not popular to interfere with the voter's vices, habits or life style. Prohibition is an example. The least they could do is insist on putting a warning statement on all liquor bottles.

Among younger people this "food" is the most important drug of abuse. It is frequently the primer for hard drugs. A drunk is an annoyance, causer of accidents, fires, injuries, crime, absenteeism from work and no end of abuses. But to our Congressmen it is still a food. They much prefer to condemn DSMO, cranberry bogs, cyclomates, etc.

I once overheard a United States Senator say that Congress would never repeal the Delaney clause because it was saving thousands of lives. But he and none of his colleagues are willing to submit alcohol, tobacco or even common table sugar to the same type of listing as they did on the cyclomates.

The medical profession should never forget the fact that we have a government run (indirectly) by vocal minorities and lobbyists. Calling alcohol and tobacco what they really are could encourage a change in the Delaney clause.

T. R. Van Dellen, M.D., *Editor*

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Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers
Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005

How We Started

In 1972, ISMS invited the State's eight medical schools to join in a unique co-operative venture between profession and professional school—the Illinois Council on Continuing Medical Education. ICCME has worked quietly but effectively throughout the state since that time. To insure that all ISMS members know about ICCME services, we have arranged for members of that Council's Board to write a series of editorial reports. This is the first in that series.

In 1969, when Dr. Edward Canady was President of the Illinois State Medical Society, he proposed and worked for the creation of an independent council on Continuing Medical Education combining the efforts of ISMS, other professional bodies, and the medical schools. Following him as President and believing this to be a most important project, I worked vigorously with others and the ICCME became a reality in 1972.

The Council has seventeen members, one nominated by the Dean of each of our eight medical schools, eight members nominated by the ISMS Board of Trustees, and one, usually the Chairman of our Accreditation Committee, nominated by the Chairman of the Council of Education and Manpower. These nominees are elected to the Council for a period of one year early each January by the Corporate Body. The ICCME is a corporation. The Corporate Body is composed of the members of the ISMS Executive Committee of the Board of Trustees. ICCME is truly independent and although financed by the ISMS, they are not dictated to by the parent body. In 1972, and in every year since then, the House of Delegates approved the project and diverted half of the twenty dollar educational donation of each member of the Society to ICCME.

On September 1, 1972, our Executive Director, Leonard Stein, Ph.D., an educator with twenty-four years experience in continuing education, assumed direction of our organization. The selection of Dr. Stein was most fortunate and under his vigorous leadership and his writings we have become well known, not only in Illinois but throughout the nation. Many CME planning publications have been prepared, of which about 12,000 copies have been distributed. About half

of these have gone free to Illinois physicians and half were sold to individuals or institutions outside the State.

The purposes of the Council are to make CME available to Illinois Physicians, to catalog and coordinate educational programs, to encourage development of new educational methods, to discover educational needs of Illinois physicians, to seek out providers of programs and to motivate physicians to participate in CME.

Each year an instructional "Congress" is presented and attended by over a hundred of those responsible for CME programs throughout the state. In addition intensive workshops are offered for those who wish further instruction. Assistance is given to the ISMS in the examination of institutions within the state for CME accreditation. Additional assistance for Illinois doctors either available or on the drawing board are: the CME Fellowship Program, wherein the doctor may go back to a hospital as a resident for a short time, and a Visiting Professor Program, which will enable a hospital to get a professor from one of the medical schools to come out for one or two days for consultation.

The present demand for CME is voluntary, but compulsion is being added. Most specialty societies are requiring CME credits to remain certified. Some state medical societies require evidence of CME for continued membership, and our Illinois Legislature just passed a law requiring CME credits for the renewal of your license to practice. Through ICCME, Illinois is ahead of other states in providing assistance to the doctors in obtaining Continuing Medical Education.

*J. Ernest Breed, M.D.
ISMS Past-President, Secretary, ICCME, 1976*

THE 5 RELIABLE ROBITUSSINS can really help clear the respiratory tract. All contain guaifenesin,* the expectorant that works systematically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise.

*formerly named Glyceryl Guaiacolate

For productive and unproductive coughs

ROBITUSSIN®

Each 5 ml teaspoonful contains:
Guaifenesin, NF. 100 mg
Alcohol, 3.5%

For severe coughs

ROBITUSSIN A-C®

Each 5 ml teaspoonful contains:
Guaifenesin, NF. 100 mg
Codeine Phosphate, USP. 10.0 mg
(warning: may be habit forming)
Alcohol, 3.5%

Non narcotic for 6-8-hr. cough control

ROBITUSSIN-DM®

Each 5 ml teaspoonful contains:
Guaifenesin, NF. 100 mg
Dextromethorphan Hydrobromide, NF. 15 mg
Alcohol, 1.4%

Decongests nasal passages and sinus openings as it helps relieve coughs

ROBITUSSIN-PE®

Each 5 ml teaspoonful contains:
Guaifenesin, NF. 100 mg
Pseudoephedrine** Hydrochloride, NF. 30 mg
Alcohol, 1.4%

**Formerly contained Phenylephrine Hydrochloride 10 mg

Decongestant action helps control cough and clear stuffy nose and sinuses. Non narcotic.

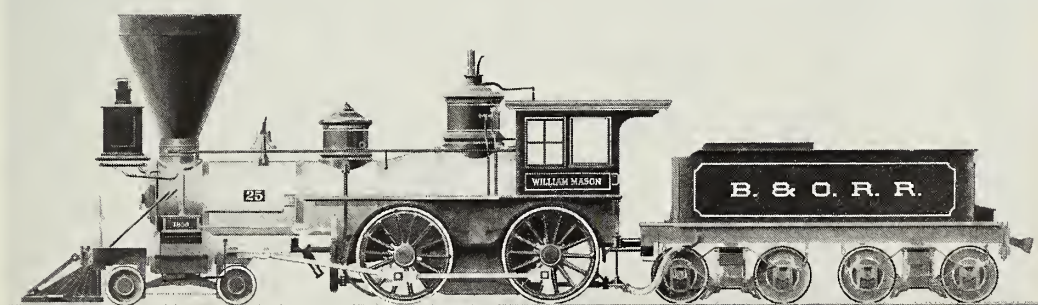
ROBITUSSIN-CF®

Each 5 ml teaspoonful contains:
Guaifenesin, NF. 50 mg
Phenylpropanolamine Hydrochloride, NF. 12.5 mg
Dextromethorphan Hydrobromide, NF. 10 mg
Alcohol, 1.4%

All Robitussin formulations available on your Rx or Recommendation.

A. H. Robins Company, Richmond, Va. 23220 **A-H-ROBINS**

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines. In keeping with this tradition, the company recently commissioned a well-known illustrator to render full-color drawings of several classic locomotives...accurate to the minutest detail. The first of the series is now available. To order your print suitable for framing, write "Robitussin Clear-Tract Engine #1" on your Rx pad and mail to "Vintage Locomotives," Dept. T4, A. H. Robins Company, 1407 Cummings Drive, Richmond, Va. 23220.



The William Mason (1856)

Clinics for Crippled Children Listed for March

Thirty clinics for Illinois's physically handicapped children have been scheduled for March by the University of Illinois, Division of Services for Crippled Children. The Division will count twenty-two general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical, social and nursing services. There will be seven special clinics for children with cardiac conditions, and one for children with cerebral palsy. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- March 3 Hinsdale, Hinsdale Sanitarium
- March 4 Sterling, Community General Hospital
- March 4 Effingham, St. Anthony Memorial Hospital
- March 4 Lake County Cardiac, Victory Memorial Hospital
- March 8 Peoria Cardiac, St. Francis Children's Hospital
- March 9 Peoria, St. Francis Children's Hospital
- March 9 Carrollton, Boyd Memorial Hospital
- March 9 Carmi, Carmi Township Hospital
- March 9 E. St. Louis, Christian Welfare Hospital
- March 10 Joliet, St. Joseph's Hospital
- March 10 Champaign-Urbana, McKinley Hospital
- March 11 Macomb, McDonough District Hospital
- March 11 Springfield, St. John's Hospital
- March 12 Chicago Heights Cardiac, St. James Hospital
- March 12 Division Cardiac, U. of I. Hospital, Center for Handicapped Children
- March 16 Rock Island, Moline Public Hospital
- March 16 Belleville, St. Elizabeth's Hospital
- March 16 Decatur, Decatur Memorial Hospital
- March 17 Centralia, St. Mary's Hospital
- March 17 Springfield Pediatric-Neurology, Diocesan Center
- March 17 Evergreen Park, Little Company of Mary Hospital
- March 18 West Frankfort, Union Hospital
- March 18 Elmhurst Cardiac, Memorial Hospital of DuPage County
- March 22 Peoria Cardiac, St. Francis Children's Hospital
- March 23 Peoria, St. Francis Children's Hospital
- March 23 Alton, Alton Memorial Hospital
- March 24 Rockford, St. Anthony Hospital
- March 24 Chicago Heights, St. James Hospital
- March 24 Elgin, Sherman Hospital
- March 26 Chicago Heights Cardiac, St. James Hospital

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization and after-care for children with crippling conditions or who are suffering from conditions that may lead to crippling. In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse association, local social and welfare agencies, local chapters of the National Foundation and other interested groups. In all cases the work of the Division is intended to extend and supplement, not supplant activities of other agencies, either public or private, state or local, carried on in behalf of crippled children.

KAY CIEL® (potassium chloride) ELIXIR 10%

DESCRIPTION:

Each 15 ml. (tablespoonful) contains:
Potassium Chloride1.5 g.
(supplying 20 meq.)
Alcohol 4%
in a palatable base. Contains no sugar.

INDICATIONS: Treatment and prevention of potassium deficiency occurring especially during thiazide diuretic or corticosteroid therapy, digitalis intoxication, low dietary intake of potassium, or as a result of excessive vomiting and diarrhea and for correction of associated hypochloremic alkalosis.

CONTRAINDICATIONS: Impaired renal function, untreated Addison's Disease, dehydration, heat cramps and hyperkalemia.

WARNINGS: Do not use excessively.

PRECAUTIONS: Administer with caution and adjust to the requirements of the individual patient. The patient should be checked frequently and periodic ECG and/or plasma potassium levels made. Use with caution in patients with cardiac disease. In hypokalemic states, attention should be directed toward the correction of the frequently associated hypochloremic alkalosis. **Patients should be cautioned to adhere to dilution instructions.**

ADVERSE REACTIONS: Potassium intoxication indicated by listlessness, mental confusion, paresthesia of the extremities, weakness of the legs, flaccid paralysis, fall in blood pressure, cardiac depression, arrhythmias, arrest and heartblock. Vomiting, nausea, abdominal discomfort and diarrhea may occur.

DOSAGE AND ADMINISTRATION: *Elixir:* One tablespoonful (15 ml. supplying 20 meq.) **diluted** in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician. *Powder:* Contents of 1 packet dissolved in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician.

OVERDOSAGE: In case of excessive use resulting in hyperkalemia or potassium intoxication, discontinue use of potassium chloride administration or take other steps to lower serum levels if indicated.

HOW SUPPLIED: *Elixir:* In bottles of: 473 ml. (16 fl. oz.) ...NDC 0041-0143-16. 3785 ml. (128 fl. oz.) ...NDC 0041-0143-28. *Powder:* In boxes of: 30 *Solodose* packets...NDC 0041-0144-30.

Cooper

Cooper Laboratories, Inc.
Wayne, New Jersey 07470

143-38R/COS-878

Ereh oho esohit fo ecalp-gnitser lanif a sa, dlief taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc os noitan yna ro noitan taht rehte gnitset raw, livic taerg a ni degagne era ew won.

"Potassium chloride is preferred to other salts of potassium since, in most hypokalemic states, hypochloremia is also present and chloride ion is needed to allow complete potassium replacement."

decnavda yldon os raf suht evah ereh.

Thguof oho yeht hcihc krow edosinif nu eht ot ereh detacided eb. Ot rehtar gnilv os rof si ti, ereh did ydeht taw tegrof reven nac it tub, ereh yas ew tawh rehmember gnol ron, eton eltitis dlrow eht tearted.

Ro dda ot rewop roop ruo veoba raf, ti detarcesnoc evah ereh delggurth. Dna gnilv nem evah eht dnuard sint wollah tonnac, ew etarcesnoc tonnac ew esren regral a ni tub od lduohs ew taht reporp dna.

Gnititf rehtegotta is iti evil thgim noitta taht sevil rieht ovag ereh ohow esohit fo ecalp-gnitser lanif a sa, dlief taht fo noitropet a etacided ot. Kom evah raw taht fo dliefelittab taerg a no tem eca ew, erudne gnol a nac detacided os ena devienoc. Brosba os noitan yna ro taht rehtehw gnitset dregn.

Ereh oho esohit fo ecalp-gnitser lanif a sa, dlief taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc.

"In general, the chloride salt is preferable because of the participation of chloride in the renal conservation of potassium."

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Morf that su erofed gniinamer kast taerg eht ot detacided ertew eb ot su orf rehtar si to decnavda yldon os raf suht evah ereh.

Lauqe detaere era nem lla taht noit isoprop eht ot detacided nda ytrebil ew devienoc, noitan wen a thenitnoc no htruofthgourb srehtaf ruo oga. Sraey neves dna erocruof, htrar eet morf hsire ton llahs elps eht rof, elpocp eht yb, elpocp et fo taemnevog taht dna--modeert fo htrih wen ewah llahs rednu--noitan taht niav.

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"If potassium depletion is accompanied by a deficit of chloride, it may be quite difficult to correct that deficit and dissipate the alkalosis unless adequate quantities of chloride are made available."

Ereh oho esohit fo ecalp-gnitser lanif a sa, dlief taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc os noitan yna ro noitan taht rehte gnitset raw, livic taerg a ni degagne era ew won.

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Morf that su erofed gniinamer kast taerg eht ot detacided ertew eb ot su orf rehtar si to decnavda yldon os raf suht evah ereh.

We have it on best authority...
KAY CIEL® Elixir
(potassium chloride) 10%

Replaces more than just potassium

1. AMA Drug Evaluations, ed. 2, Publishing Sciences Group, Inc., Acton, Mass., 1973, p. 184.
2. Sandstead, H., in Wintrobe, M.M. et al. (Eds.): Harrison's Principles of Internal Medicine, ed. 7, New

York, McGraw-Hill Book Company, 1974, p. 441.
3. Welt, L.G., in Goodman, L.S., and Gilman, A. (Eds.): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, pp. 798-799.

Please see full prescribing information on opposite page.

Also available
KAY CIEL® Powder
Solodose®
(potassium chloride 1.5 g.)
Each convenient packet
containing 20 meq KCl

IMPAC

Illinois Medical Political Action Committee

The 1976 election year promises to be one of the most challenging to face IMPAC in recent history. All 177 seats in the Illinois House of Representatives and 39 of the Senate seats are up for election and being contested. As a result, many new faces will appear on the Springfield scene; not only because some will not be re-elected, but also because a surprising number of legislators have announced that they will not seek re-election to their current offices—29 Representatives and 11 Senators.

Among those who have announced that they will not return are most of the current leaders of the General Assembly. Senate President Cecil Partee (D-Chicago) has been slated as the regular Democratic candidate for Attorney General. Senate Minority Leader William Harris (R-Pontiac) will be the Republican candidate for Secretary of State. Assistant Minority Leader Howard Mohr (R-Forest Park) has announced his retirement to devote more time to his family and his responsibilities as Mayor of Forest Park. House Majority Leader Gerald Shea (D-Riverside) also has announced his retirement, which many observers think means he will be strongly involved in Secretary of State Mike Howlett's bid for the Democratic gubernatorial nomination. House Minority Leader James R. Washburn (R-Morris) has announced his candidacy for the Republican nomination for the 15th Congressional District seat presently held by Democrat Tim Hall of Dwight.

Statewide races for Governor, Lieutenant Governor, Attorney General, Comptroller, and Secretary of State will also yield interesting contests, particularly in the primary. The often-mentioned feud between Mayor Daley and the Governor seems to have resulted in two sets of candidates for each office—one "slated" by the Mayor and one "endorsed" by the Governor. Daley candidates include: (for Governor) Secretary of State Mike Howlett, (for Lieutenant Governor) Neil Hartigan, (for Attorney General) Senate President Cecil Partee, (for Secretary of State) State Treasurer Allan J. Dixon, and (for Comptroller) former Superintendent of Public Instruction Michael J. Bakalis. Opposing them in the primary are the following: (for Governor) Dan Walker, (for Lieutenant Governor) Joanne Alter, (for Attorney General) Department of Registration and Education Director Ron Stackler, (for Secretary of State) State Senator Vince Demuzio of Carlinville, and (for Comptroller) Department of General Services Director Roland Burris.

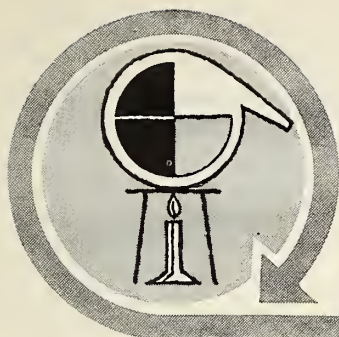
On the Republican side, incumbent Attorney General

William Scott and Comptroller George Lindberg will have no primary opposition. Senate Minority Leader William Harris also faces no opposition in his bid for the Republican nomination for Secretary of State. In the Republican gubernatorial primary, however, former U.S. Attorney for Cook County Jim Thompson will be opposed by Richard Cooper, the President of Weight Watchers International. And, in the Republican primary for Lieutenant Governor, St. Clair County Sheriff Dave O'Neal will be opposed by Joan Anderson, Trustee of the Metropolitan Sanitary District of Cook County.

All in all, the Illinois political situation promises to be one with some interest for just about everybody—and one which merits close attention, since the results of this year's elections will have far-reaching implications for Illinois physicians. Physicians will have to monitor campaign developments carefully in order to establish or maintain a good working relationship both with the legislature and with the various agencies of state government. With an eye toward making that task a little easier, the IMPAC Council, at its last meeting, adopted a new far-reaching grassroots program designed to maximize physicians' political involvement through an ongoing candidate support system. The program is structured around the 24 Illinois Congressional Districts and relies heavily on District IMPAC Chairmen, whose primary responsibilities will be the development of permanent IMPAC committees as ongoing vehicles for candidate support. Members of each committee will be recruited from county medical societies in the district and may also serve as chairmen of physician support committees for specific legislative candidates. Likewise, the members of the Congressional District Committee may serve as the nucleus for congressional candidate support activities.

This new program has the potential for becoming IMPAC's most ambitious undertaking ever. Its success means that our political action efforts will keep pace with the times, thereby assuring continued efficiency. To aid in the development of the program, committee members will receive a variety of campaign materials and plans are being formulated for a series of introductory seminars. These seminars will focus on effective campaign activities, and may include such items as public affairs briefings and political situation updates.

IMPAC urges your involvement in this new program. Interested physicians (and spouses) should contact: IMPAC, Suite 3510, 55 E. Monroe, Chicago, Illinois 60603.



new pharmaceutical specialties

By PAUL DEHAEN

For detailed information regarding indications, dosage, contraindications and adverse reactions, refer to the manufacturer's package insert or brochure.

New Single Drugs—Drugs not previously known, including new salts.

Duplicate Single Drugs—Drugs marketed by more than one manufacturer.

Combination Products—Drugs consisting of two or more active ingredients.

New Dosage Forms—Of a previously introduced product.

The following new drugs have been marketed:

NEW SINGLE DRUGS

RENOQUID Sulfonamide Rx
Manufacturer: Parke Davis
Nonproprietary Name: Sulfacytine
Indications: Urinary tract infections when due to susceptible strains.

Contraindications: Hypersensitivity to sulfonamides.
Dosage: Adults, loading dose - 500 mg., then 250 mg. four times daily for ten days.
Not recommended for children under fourteen.
Supplied: Tablets, 250 mg.

SOLATENE Sunscreen Rx
Manufacturer: Roche Laboratories
Nonproprietary Name: Beta-Carotene
Indications: Amelioration of photosensitivity in patients with erythropoietic protoporphyria.
Warnings: Not to be used as a sunscreen in normal individuals.
Dosage: Adults, 30-300 mg. daily, adjust to response of patient.
Supplied: Capsules, 30 mg.

DUPLICATE SINGLE DRUGS

E.E.S. 400 Broad Spectrum Antibiotic Rx
Manufacturer: Abbott Laboratories
Nonproprietary Name: Erythromycin Ethylsuccinate
Indications: Infections caused by susceptible strains.
Contraindications: Hypersensitivity to the drug.
Precautions: Use with caution in patients with impaired hepatic function.
Dosage: Adults, 1 tablet every 6 hours; may be increased to 10 tablets.

Supplied:

NEOCYTEN
Manufacturer:
Nonproprietary Name:
Indications:

Contraindications:

Dosage:

Supplied:

SYLLACT Laxative o.t.c.
Manufacturer: Wallace Laboratories
Nonproprietary Name: Psyllium mucilloid
Indications: Constipation
Dosage: Adults, teaspoonful in glass of cool water one to three times daily.
Envelopes, 10 oz.

Supplied:

SYNOPHYLLATE - LA Bronchodilator Rx
Manufacturer: The Central Pharmacal Co.
Nonproprietary Name: Theophylline
Indications: An aid in chronic bronchial asthma and prevention of acute attacks.
Dosage: 1 capsule every 12 hours; may be adjusted to individual requirements to 1 capsule every 8 hours.
Supplied: Timed release capsule, 260 mg.

COMBINATION PRODUCTS

DOLENE AP-65 Nonnarcotic Analgesic Rx
Manufacturer: Lederle Laboratories
Composition: Propoxyphene HCl 65 mg.
Acetaminophen 650 mg.
Indications: Mild to moderate pain.
Precautions: See package insert.
Dosage: 1 tablet every four hours as needed.
Supplied: Tablets

DUOFILM Dermatological Prep. Rx
Manufacturer: Stiefel Laboratories, Inc.
Composition: Salicylic acid 16.7%
Lactic acid 16.7%
In flexible collodion
Indications: Removal of common warts.
Application: See package insert.
Supplied: Bottle, 1/2 fl. oz.

Children, depends on age and weight.

Tablets, 400 mg.

Muscle Relaxant Rx

The Central Pharmacal Co.
Orphenadrine Citrate Injection.
Acute painful musculo-skeletal conditions.

The same as for anticholinergic drugs.

Average adult, 2 ml. (60 mg.) i.v. or i.m.; may be repeated every 12 hours.

Multiple dose vials, 10 ml.

Laxative o.t.c.

Wallace Laboratories
Psyllium mucilloid
Constipation
Adults, teaspoonful in glass of cool water one to three times daily.
Envelopes, 10 oz.

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The Central Pharmacal Co.
Theophylline
An aid in chronic bronchial asthma and prevention of acute attacks.

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Manufacturer: Winthrop Laboratories
 Composition: Pentazocine HCl 12.5 mg.
 Aspirin 325 mg.
 Indications: Relief of moderate pain.
 Warnings and Precautions: See package insert.
 Dosage: Adults, 2 caplets 3 or 4 times daily. Children under 12 years, use not recommended.
 Supplied: Caplets

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Antagonist Rx

Manufacturer: Endo Laboratories, Inc.
 Nonproprietary Name: Naloxone HCl
 Indications: Reversal of narcotic depression.
 Warnings: See package insert.
 Dosage: See package insert.
 Supplied: Vials, 10 ml.
 Ampules, 1 ml.
 0.02 mg/ml.
 For i.v., i.m. and s.c. injection.

NARCAN**Neonatal Injection**

Antagonist Rx

Manufacturer: Endo Laboratories, Inc.
 Nonproprietary Name: Naloxone HCl
 Indications: Reversal of narcotic depression.
 Warnings: See package insert.
 Dosage: See package insert.
 Supplied: Ampules, 2 ml.; 0.02 mg/ml.
 For i.v., i.m. and s.c. injection.

TRANXENE SD

Ataratic Rx

Manufacturer: Abbott Laboratories
 Nonproprietary Name: Clorazepate Dipotassium
 Indications: Symptomatic relief of anxiety.
 Contraindications: Hypersensitivity to the drug and acute narrow angle glaucoma.
 Warnings: Do not use in depressive neurosis or in psychotic reactions, avoid hazardous occupations.
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Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

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Obituaries

°Adams, Vail, Macomb, died December 14 at the age of 60. Dr. Adams graduated from University of Illinois in 1940.

°Benaron, Henry, Chicago, died December 31 at the age of 68. He graduated from University of Manitoba in 1930. Dr. Benaron was former co-director of the Chicago Maternity Center and Director of the Infant Welfare Society.

°Congdon, Charles, Hinsdale, died January 3 at the age of 79. Dr. Congdon graduated from Rush Medical College in 1927.

°Frankfurth, Vincent, Park Ridge, died January 1 at the age of 68. Dr. Frankfurth graduated from Wayne State in 1932.

°Lee, Robert, Chicago, died December 30 at the age of 70. Dr. Lee graduated from Stritch Medical School in 1930.

°Springer, Kurt, Kankakee, died December 22 at the age of 62. Dr. Springer graduated from University of Vienna in 1937.

°Tanner, Henry, Paris, died December 18 at the age of 64. Dr. Tanner graduated from Northwestern University in 1937.

So You Think Your Business is Complicated?

The developer and manufacturer of the only soft contact lens sold in this country under Food and Drug Administration approval for vision correction charged in federal court that a second company that recently received FDA approval for a soft contact lens had infringed on their patent.

The Czechoslovak Academy of Science, which invented a hydrophilic or water-attracting plastic used to make flexible soft lenses and which has a patent on it; National Patent Development Corp., the New York company which holds most of the patent rights to make and market the plastic material, and Bausch & Lomb, Inc., Rochester, N.Y., which is the exclusive licensee in the U.S. for contact lenses made of the material, filed in U.S. District Court in Denver, against Automated Optics, Inc. The suit alleges that a plastic material patented by Automated Optics, a privately held concern with headquarters in East Northport, N.Y., infringes on the patent for the material from which the Bausch & Lomb lens is made.

Officials of Automated Optics couldn't be reached for comment in New York, and a spokesman at a company manufacturing facility in Denver said the company was unaware of the suit and declined immediate comment.

Automated Optics announced last April that the FDA had cleared its hydrophilic lens for marketing and that it had licensed Soft Lenses Inc., of San Diego, a subsidiary of Continuous Curve Contact Lenses Inc., a maker of hard contact lenses, to make and sell the soft lenses.

The FDA had previously approved for vision correction only the Bausch & Lomb lens, although it has also granted approval to a soft lens made by Warner-Lambert Co. but only for use in the treatment of certain eye diseases.

Automated Optics has also announced an agreement in principle with Milton Roy Co., St. Petersburg, Fla., for a joint venture for the manufacture of soft contact lenses. When they announced their intentions in May, the companies said the facilities and manufacturing procedures to be used for the soft lens would need prior clearance from the FDA. ("Bausch & Lomb Group Charges Violation Of Its Patent for Soft Contact Lenses." *The Wall Street Journal* (Monday, August 26) 1974, pg. 7).

Bilateral Necrosis of Carpal and Tarsal Bones

BY EUGENE F. DIAMOND, M.D. AND LEON LOVE, M.D./MAYWOOD

Bilateral necrosis of the carpal and tarsal bones resulting in a syndrome resembling juvenile rheumatoid arthritis was observed in a nine-year-old boy. The clinical and radiological features of the condition observed in this child were similar to those previously reported by Caffey, Martel, and others.¹⁻⁷ The condition resulted in pronounced deformity and limitation of motion of both wrists and ankles and was responsible for severe disability and claudication.

Case Report

A. S., a 9-year-old boy was referred because of a progressive and painful deformity of both wrists and ankles. He had been in good health until the age of 3 when he began to experience periodic warmth and swelling of the wrists. This had progressed to involve the ankles and had gradually resulted in marked limitation of extension of the wrists and a near ankylosis of the ankles. During periods of exacerbation he was unable to walk for 1-2 days at a time. After periods of sustained exercise, he would complain of severe pain and resort to crawling instead of walking. On physical examination, there was marked limitation of motion of both wrists and ankles and conspicuous atrophy of the muscles of the forearms and lower legs. X-rays of the wrists and ankles disclosed destructive changes in the carpal and tarsal bones (Figs. 1 and 2). Short-term steroid therapy resulted in no observable changes in the tenderness, mobility or temperature of the joints. Electromyography was consistent with a disuse atrophy.

Discussion

The etiology of this syndrome is obscure. Trauma was implicated in the case reported by Caffey¹ but there was no history of significant trauma in our patient. Hereditary transmission was suggested in the reports by Shurtleff, et al³ and by Thieffry and Sorrel-Dejerine.⁴ There was a history of arthritis in one of our patient's grandparents but X-rays of the wrists and ankles failed



Figure 1. There is a marked loss of volume of the carpals. There has been a disappearance of multiple carpal ossification centers with fragmentary visualization of others.



Figure 2. Ankles reveal similar changes as those seen in wrists. There is marked loss of tarsal volume. Metatarsals and phalanges are intact.

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to show necrosis. Similar radiological surveys of the patient's parents and siblings were without abnormality. There was a close similarity of roentgenographic features in this patient to those described by Winchester, et al⁵ in 2 siblings who had abnormal mucopolysaccharide metabolism. Urinary micropolysaccharide excretion was not abnormal, however, and skin fibroblast culture was normal. The associated hypertension and nephropathy reported by Shurtleff, et al⁶ was not observed in this patient or in available relatives. Findings in previously reported cases are sum-

marized in Table I.

Summary

Bilateral necrosis of the carpal and tarsal bones is reported in a nine year old boy who had deformities of the wrists and ankles suggestive of rheumatoid arthritis. No definite evidence for hereditary transmission or other etiology could be demonstrated. The features exhibited by this patient are compared with previously reported cases. ◀

Table I
Case Summary

Author	Age of Patient	Joints Involved	Associated Findings
1) Caffey ¹	7 yrs.	Left wrist	Similar findings in both wrists and ankles of patient's father; grandfather had similar deformities of wrists
2) Caffey	?	Both wrists	History of trauma (wringer injury) to left wrist
3) Martel ²	4 yrs.	Both wrists	? Rheumatoid Arthritis
4) Thieffry & Sorrel-Dejerine ⁴	?	Wrists & Ankles	Similar findings in 5 siblings in 3 generations
5) Winchester, et al ⁵	20 mos.	Wrists	Evidence of acid mucopolysaccharide storage
6) Shurtleff, et al ³	3-4 yrs.	Wrists & Ankles	Hypertension Nephropathy
7) Normand ⁶	4 yrs.	Wrists	Erosion of proximal metacarpals
8) Omer & Mossman	26 yrs. 4 yrs.	Wrists & Ankles	Mother and son affected
9) Diamond & Love	9 yrs.	Wrists & Ankles	Normal mucopolysaccharides

Acknowledgment

Appreciation is expressed to Dr. John Caffey for reviewing roentgenograms.

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A Bit Much

"Soon, according to some projections, one out of every three people will be on some sort of government payroll. They will be either making, interpreting, enforcing, processing, promoting, administrating, benefiting from or proliferating laws. The number of employees in local, state or federal government has already reached 17.7 percent of the total employment!"—Chamber of Commerce of the United States.

Getting it Together for the Golden Age Obtaining Optimal Health Education for the Elderly

BY ROGER J. MEYER, M.D. AND SUSAN R. LEVY, M.S./CHICAGO

In recent years there has been a steadily increasing demand for health care alternatives for elderly people. Over 15 billion dollars are being spent each year for the present system of health services to the elderly, yet service gaps and needs are escalating.¹ Even at this price, many efforts appear to be unproductive—life is often prolonged at the expense of quality and independence. An ever growing proportion of the population is reaching that "Golden Age" of 65. The term "Golden" is misleading however, as it is usually associated with "valuable". Too often the older person feels unnecessary to society, due to retirement, illness and loss of friends and family.

Establishing a Nutritional Plan for an Elderly Individual

The elderly in our society are given few alternatives for health and nutrition. Expensive institutional care seems favored by laws for reimbursement, at the expense of home and community life arrangements. The population over 65 suffers substantially higher rates of hospital care than younger groups—a figure that is steadily increasing.² There are six out of seven elderly people who have some chronic diseases that transcend hospitalization and compound health care needs for them the remainder of their lives. One reflection of the increasing concern among patients and professionals is the fact that discovery rates of chronic disease in elderly persons have risen in recent years, including rates for cancer, coronary artery, stroke and related vascular disorders. Injury rates have also increased.³ Many of the disorders which afflict the elderly either require special diets and medications or are seriously complicated by inadequate nutrition. Despite the critical role of nutrition, few provisions for dietary follow-up exist in health facilities to insure that such health giving instructions are being followed

or even financially possible. The increasing unmet health and nutritional needs of the elderly are further aggravated by isolation from convenient sources of such care. The majority of older people are out of reach of the very resources which are vital to their survival in this complicated society.

When an elderly person manages to present a request for health or nutritional assistance, a long wait often ensues. Dental, visual, hearing and other rehabilitative resources required to improve functioning are either unavailable or too expensive. Unfortunately, the extended years given to the elderly are often passed in dependence, isolation and institutionalization, when effective support systems might have permitted a more positive outcome.

Long-term care also has been a matter of deep public concern in recent years. Almost a million elderly persons are confined to 23,000 institutions.⁴ In addition to the 5% of the elderly living in institutions, another 20% living in the community are in great need of continual health and nutritional support services.⁵ These people require special care and outreach programs in order to maintain their independent living arrangements. For the benefit of society as well as older Americans, independent living must receive top priority. The view of most authorities stresses the need for such independence to allow dignity, self-reliance and control over the elderly population's health costs.

Methods of Maximizing Resources

Let us consider some of the health and nutrition resources that can increase independent living and the quality of life for older Americans. Chicago has developed a number of inter-related

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efforts which link nutritional, social, health and other support services together in a cooperative system. The "Golden Age Diner's Programs" bring nutritional resources together for the ambulatory elderly within a public health setting in several sites in Chicago. Chicago's Office for Senior Citizens, one of the first in the nation, began in 1968, and is under the direction of Robert Ahrens. This office created a citywide system of services with assistance from the Administration on Aging and other funding sources. Socialization, nutritional education and health care were combined with other services such as transportation. The client's free choice of physician, referral systems and sound dental programs were also included.

The city is divided into five service areas, each having 100,000 people over 65. Meetings to elect senior representation and develop organizations were held. A continuum of coordinated services was developed to meet the needs which the elderly expressed—casework, comprehensive health services, hearing assessments, dental care, counselling, home help, housing assistance and health advocacy through the purchase of service contracts with other city departments. The Board of Health is also concerned with improved service to every person over 65 in the city, in addition to its regulatory functions.

A Senior Central Information and referral system further improved communication for those elderly people who were less mobile. Escort, transport and outreach as well as follow-up were built into the system. City departments like Fire, Police, and Parks and Recreation made special attempts to develop programs and encourage participation among older people. Emergency services were also linked into the system, since there were many isolated elderly people who required organized help with illnesses. In summary, the Chicago program linked public and private resources together, threading communications through the elderly person's needs assessment. Councils and information centers sought to maximize the use of city resources on a cooperative basis.

Other Programs

A contrasting program in St. Vincent's Hospital, New York City, exemplifies an attempt to reach out to homebound elderly. Started in 1973, the aim of this program is to keep clients in their homes and communities, thus preserving the best possible state of health and indepen-

dence.⁶ Like the Chicago program, it enlisted all types of local, voluntary help. Groups which participate include official city departments, welfare hotel managers, church groups and community residents. All of these people helped identify prospective clients. The team approach includes a doctor who makes house calls and arranges for hospitalization as needed, a nurse who determines other services necessary, a homemaker who creates a climate for coping with individual needs, and a bilingual office worker who coordinates the paper work and dispatches the transport system when needed. Not only do they restore health and dignity to an elderly population, which was poorly reached before, but the savings in scarce personnel and dollars are enormous! In the first 12 months, 70 patients were maintained at home who would otherwise have required nursing home or hospital care costing over \$672,000. Yet the project operated on only \$35,000 per year.

The Cardinal Ritter Center in St. Louis is another program developed several years ago in a similar manner. It provides "full service resource banking." It links hospital and nursing home care to an organized home care and "friendly visitor" program that insures sound supervision when the client is ready to go home. This program has grown steadily and demonstrated its capability of preserving independent living through a spectrum of supportive services that insure immediate care rather than the fruitless search for services that so often characterizes the life of the urban elderly. Its most valuable function is to bring nutritional, medical and other services together for old people.

Let us examine the components of an optimal health and nutritional service system. A model plan must first start with practical prevention. Nutrition is an obvious key because often illness can be minimized or prevented with the aid of adequate nutrition.

Instituting a Nutrition Education Plan

Adequate nutrition for the elderly must include a program of services to support the independent elderly physically, financially and educationally. Factors to be considered as crucial to the planning stage of a nutrition education program include:

1. The individuality of the elderly person, including food preferences, former food patterns, financial means, physical abili-

ties to cook and personal diet needs.

2. The physical surroundings of home and neighborhood, transport to and from the store, and cooking facilities.
3. Family or friends who can help support the program by motivating the elderly person to participate and follow through.
4. Identify the resources available in the area to help support or motivate an independent nutrition education program.

Once this information is known, the second phase of the program can be put in motion. The main idea of this program is that diet and nutrition for an elderly individual should be easily understood and strongly motivated. Therefore, the planning of the actual diet program can be done by non-professionals (family) or by various professionals who may be available to assist. In any case, before the diet plan is instituted it should be looked at and discussed with a physician.

A successful program must reach three groups of people: the elderly, their family and the friends of the elderly. All must understand the food plan and be aware of special problems so they can aid if the person falters, and reinforce the information in the program. For example, if an elderly person is being given radiation treatment for cancer, family and friends must understand that this treatment causes nausea. It is therefore imperative that family or friends be available and try to make sure that the person takes some nourishment.

Use of Educational Resources

A paradox which exists in our country today is that the educational resources and techniques which are used for teaching the young are not used to educate the elderly population. However, some of these techniques can and should be used to plan individual nutrition programs. An important technique which could be employed in directing such programs is the measurement of one's success or failure to attain certain goals. This can be done by the use of general objectives and smaller, more measurable objectives. As an example, two general objectives for a personal nutrition plan might be:

1. The elderly person and his family or friends can demonstrate a knowledge of basic menu planning based on the needs, finances, capabilities and likes of that individual.⁹

2. The involvement of family and friends with the nutrition program of the elderly person would be a continuous association, showing consistency and dependability.^{10,11}

Some smaller objectives might be:

1. The individual eats at least two balanced meals a day.
2. The individual is demonstrating more vitality and ability to do the ADL (Activated Daily Living).
3. The individual eats at least three meals a week with other people.

In order to attain these objectives positive reinforcement and motivational techniques should be used. People might be encouraged to bring to the elderly food that they like. Parties can be planned on a regular basis where food is shared by friends. Improved or stabilized health should be praised by the family and the physician. Basically all of these techniques are hinged on the concept of a group effort in this educational endeavor. It is important to note that the use of measurable behavioral objectives in planning an individual's nutrition regime provides feedback information that is important in monitoring general health status, and changing the program where needed.

Conclusion

Although nutrition is not the only aspect of life and health for the elderly with which society must be concerned, it is a crucial factor in the maintenance and improvement of the status quo. Food also has important social meanings to people in our society and a good nutrition plan which encourages people to pool resources and eat together increases sociability and wards off the common enemies of isolation and depression.

Thus, it is appropriate that nutrition education is deemed a priority in obtaining optimal health care and health education for the elderly. Health education is the most promising and potentially the most powerful resource we have today to reach out to people who have attained the age of 65 or older. It can unify these people who have come from many diverse routes, social classes, goals and ambitions. Consequently, the elderly person's acceptance of services, expression of needs and ability to follow programs is based on his or her life experiences. In establishing programs and services to develop an optimal health education and health delivery system we must consider a wide variety of program choices and alternatives to meet

(Continued on page 149)

A Comparison of the Neurologic Manifestations of Systemic Lupus Erythematosus, Periarteritis Nodosa, and Multiple Sclerosis

BY PAUL E. KAPLAN, M.D./CHICAGO

In G. A. Schumacher's article¹ on multiple sclerosis in the eleventh edition of CECIL-LOEB TEXTBOOK OF MEDICINE, under the section labeled "Diagnosis" it is noted that certain collagen disorders such as periarteritis nodosa and systemic lupus erythematosus may imitate transiently the signs and symptoms usually found in multiple sclerosis, especially since paraplegia, hemiplegia, diplopia, nystagmus can be seen in both groups of diseases before systemic symptoms. However, the same diagnosis section goes on to state that certain tests such as elevated temperature, sedimentation rate, white blood count, increased eosinophil count, evidence of visceral involvement such as in the heart, lungs and kidneys, and involvement of the musculature and peripheral nervous system, would differentiate periarteritis nodosa and systemic lupus erythematosus from multiple sclerosis.

In the twelfth edition of CECIL-LOEB TEXTBOOK OF MEDICINE in the article on multiple sclerosis by L. C. Scheinberg² there is no mention of this differential diagnosis. The eleventh edition was published in 1963; the twelfth edition in 1967. Was it that the four years difference had obviated this differential diagnosis, or was it that different authors viewed the same differential diagnosis from different viewpoints?

Multiple sclerosis, systemic lupus erythematosus, and periarteritis nodosa are often extremely widespread throughout the body and involve many major organ systems. While some organ systems produce varied responses to stress of these diseases, other organ systems show only a few types of responses. Some organ systems present similar pictures for different disease processes. The purpose of this paper is to contrast the neurologic patterns produced by multiple sclerosis with periarteritis nodosa (periarteritis) or systemic lupus erythematosus (SLE).

Neuropathology

In multiple sclerosis, the brain size is usually

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normal, but on occasion may be slightly atrophic. The size of the spinal cord is usually small. A gross examination of central nervous system tissues in a patient who has had the disease for a number of years and now may be said to be in a chronically relapsing state is usually diagnostic. The lesions are in the white matter of the brain. Upon cutting the surface, the lesions are slightly depressed, gray to gray-pink in color, and sharply demarcated. The plaques usually extend into the gray matter and vary in size, shape, number and position. A common place for the location of these plaques is at the angles of the lateral ventricles, especially about the occipital poles. When they are present in this location, their apex is usually pointed toward the cortex of the cerebral hemisphere. However, they are also seen in the brain stem, cerebellum and spinal cord.

Upon microscopic examination of an acute lesion, perivascular, lymphocytic and plasma cell infiltrate may be seen sometimes large enough to spill over into the leptomeninges. Even at an early stage there may be significant myelin loss. As the lesion gets older, the amount of perivascular infiltrate decreases, and the type of cells involved change to that of predominantly macrophages which have fragments of myelin, metachromatic granules and neutral fat. The oldest lesions will be sharply demarcated with a

marked amount of myelin loss and almost entirely devoid of reactive cells.³ Surrounding the areas of marked demyelination there will be an isomorphic gliosis and the plaques themselves will not contain oligodendroglial cells.

The changes in the nervous system brought about by systemic lupus erythematosus are all nonspecific. In patients with advanced systemic lupus erythematosus and uremia, demyelination and gliosis are found in certain focal areas of the nervous system. Occasionally proliferative endarteritis or thrombophlebitis, focal hemorrhage and fibrinoid changes are also found. Distribution of these focal lesions is the meningeal areas, cerebral areas, spinal cord or peripheral nerves.⁴

In periarteritis, certain specific lesions are found involving the arteries of medium and small caliber. Areas of necrosis, fibrinoid change and leukocyte infiltration are found involving first the media and then spreading to the intima and adventitial layers. The internal elastic lamina are frequently disrupted. The leukocyte infiltration at first involves polymorphonuclear neutrophils and occasionally the eosinophils at an early stage.

Later on in the disease process this neutrophilic infiltrate is replaced by a mononuclear infiltrate consisting of lymphocytic cells, monocytes and also plasma cells. In the later stages of the disease process the lesions spontaneously heal with fibrosis. It should be noted that giant cells are absent during this process. One or more segments of any artery may be involved and the disease process may involve the entire circumference at any one segment or only part of the circumference. In addition, the disease process may involve healing, excessive fibrosis with nodule formation, intimal proliferation leading to thrombosis and infarct, aneurysm formation, or dissection through the wall of the artery.

Frequently two or more of these conditions are seen in the same disease process.⁵ Any organ can be involved in the pathologic process just described. Most frequently the lesions are found in the kidneys and heart. However, on occasion the same type of lesions can be found in the lungs, liver, spleen, gastrointestinal tract, adrenals, testes, brain and peripheral nerves.

Symptoms

Visual symptoms such as diplopia and blurred vision are prominent in over one-half of the patients in the early stages of multiple sclerosis. The diplopia or blurred vision may be transient; however, residual defects may remain after im-

provement. This fluctuating pattern is often noted in the expression of many signs and symptoms of multiple sclerosis. In addition, the disease can affect upper motor neurons in any part of the central nervous system.^{6,7} Weakness, numbness, or decreased coordination may be present frequently in either one or both arms. The same may be true for one or both legs. Vertigo, altered speech, and unilateral facial weakness may be present. While headaches, myalgiae, and arthralgiae are uncommon, they may be present at any stage. Urinary dysfunction, when present, is ephemeral but recurrent. Seizures, weakness or numbness of one side of the body, and severe mental deterioration, are very uncommon.

In SLE and periarteritis, the symptoms are similar but have a different frequency in the affected population. Combinations of disorientation, restlessness and irritability, headaches, and seizure disorders are very common, especially during the active phases.⁸⁻¹⁰ Occasionally, weakness, numbness and decreased coordination of one side of the body occurs. Altered speech and visual symptoms may also be present. These symptoms may be observed at any stage of the disease.^{10,11} In a few cases, vertigo or unilateral facial weakness is present. Weakness, numbness, and decreased coordination of one or both arms is infrequent. This situation also applies to involvement of one or both legs. When weakness of an arm or leg is present, it is prominent early in the disease. Urinary dysfunction is uncommon.¹⁰⁻¹³ See Table I for a summary of the symptoms.

Signs

Signs follow similar patterns as symptoms for the two groups of diseases. In multiple sclerosis, the most common findings of neurologic involvement are those of ophthalmic dysfunction such as nystagmus or pallor of the optic disks. On occasion, these signs have been supplemented with internuclear ophthalmoplegia or sheathing of the retinal veins. Spasticity and ataxia are common. The difficulty is that the intensity of any one or more of these signs is not constant during the disease. Clinical improvement may not be constant or total, and the patient may be left with a residual defect. Paraparesis or monoparesis with sensory deficit is less frequent.^{6,7} Abnormal mental status examinations, abnormal speech such as scanning speech, and bladder dysfunction have been noted. Cranial nerve palsies of various types have been noted in multiple sclerosis, SLE, and

Table I
Symptoms of Multiple Sclerosis vs. SLE-Periarthritis

Symptom	Multiple Sclerosis	SLE-Periarthritis
Cranial nerve involvement—especially V, VII, VIII	Occ	Occ
visual blurring, diplopia	Freq	Occ
Sensory disturbances—especially paresthesiae or numbness	Occ	Occ
Weakness of one body side	Unc	Occ
Weakness of one or both arms or legs	Freq	Occ
Lack of coordination	Freq	Occ
Headaches	Unc	Freq
Disorientation, restlessness, irritability	Unc	Freq
Seizures	Unc	Freq
Abnormal speech	Occ	Occ
Urinary dysfunction	Occ	Occ
Myalgiae, arthralgiae	Occ	Occ

Occ = Occasional **Freq** = Frequent **Unc** = Uncommon

periarthritis. In select cases of multiple sclerosis, facial palsy is an early sign. Seizures and spastic hemiparesis with sensory deficit are uncommon. Flaccid weakness is very rare.

In SLE and periarthritis, an abnormal mental status exam and signs of toxic retinopathy are common. It has been thought that most of the central nervous system lesions in periarthritis are associated with atheromata or hypertension. Seizure disorders and spastic hemiparesis with sensory deficit are less frequent. They are usually present during the active phases and at a late stage of the disease.⁸⁻¹¹ Occasionally, facial palsy, ataxia, urinary-bladder dysfunction, choreiform movements, and altered speech have been noted.

Finally, in patients with SLE and periarthritis, paraparesis or monoparesis with sensory deficit may be due to transverse myelitis, Guillan-Barré Syndrome, polyneuritis, or mononeuritis multiplex. This weakness may be flaccid. The flaccidity is seen in lesions involving the peripheral nervous system, and it is a sign of lower motor neuron abnormality. It appears that this lower motor neuron involvement is due to the vasculitis of periarthritis and SLE. The vasculitis injures the vasa nervorum which supply the abnormal motor neurons.^{8,9,13,14} See Table II for a summary of signs.

The symptoms and signs may be identical for patients with multiple sclerosis or with SLE-

Table II
Signs of Multiple Sclerosis vs. SLE-Periarthritis

Signs	Multiple Sclerosis	SLE-Periarthritis
Signs of cranial nerve involvement—especially V, VII, VIII	Occ	Occ
Optic nerve or retinal involvement	Freq	Occ
Sensory changes		
one or both arms or legs	Freq	Occ
one side of the body	Unc	Occ
Hemiparesis-hemiplegia	Unc	Occ
Paraplegia or monoplegia	Freq	Occ
Cerebellar Ataxia	Freq	Occ
Spasticity + positive Babinski reflex	Freq	Occ
Flaccidity—absent reflexes	Unc	Occ
Abnormal mental status exam	Occ	Freq
Abnormal speech	Occ	Occ
Urinary dysfunction	Occ	Occ
Seizures disorders	Unc	Freq

Occ = Occasional **Freq** = Frequent **Unc** = Uncommon

periarthritis. The differences of the two groups of patients seem more quantitative than qualitative when considering the frequency of observation of certain signs and symptoms. In both groups of diseases, confusion, headaches, ataxia, and sensory disturbances may be present. Unilateral facial weakness, difficulty with gait or speech, spasticity, and urinary dysfunction have been observed. The distribution of the weakness, sensory abnormality, or decreased coordination may be similar. However, lower motor neuron dysfunction is found in SLE-periarthritis rather than in multiple sclerosis, just as neuromyelitis optica is found only in multiple sclerosis. The fact remains that in any one patient, after a history and physical examination, observations may not lead to a definitive diagnosis.

Lab Results

Certain abnormal laboratory values may help clarify the problem. In multiple sclerosis, an examination of the cerebrospinal fluid may reveal some abnormalities. Most commonly, an increased number of mononuclear cells or an increased amount of protein is present.^{6,7} On occasion, an abnormal colloidal gold exam has been noted. The elevations are in the first zone or, less commonly, in the mid-zone. The serologic tests for syphilis are negative in these cases. Gamma globulin elevations in the cerebrospinal fluid

have also been observed. These elevations are usually observed in relation to the active phases of the disease process. However, none of the above abnormalities is specific for multiple sclerosis. For example, elevations of the cerebrospinal fluid Gamma globulin are found in patients with periarthritis. Electroencephalographic (EEG) changes are likewise diffuse and nonspecific. They usually accompany nystagmus and signs of pyramidal tract involvement.⁷

The immunology of multiple sclerosis has been extensively investigated both for humoral and cell mediated antigen-antibody reactions. Analogies to Experimental Allergic Encephalomyelitis (EAE) have been made which include the existence of these two mechanisms in EAE. In addition, in EAE lymph nodes have formed lymphoid cells which act on glial cells and myelin.⁷ On one hand, cellular hypersensitivity has been investigated in multiple sclerosis. Increased production of migration-inhibition factor to basic myelin protein was temporally related to clinical attacks of the disease.¹⁵

On the other hand, two complement dependent antibodies, belonging to the 19S and 7S fractions, have been isolated from the sera of patients with active multiple sclerosis. These antibodies at a 10% concentration produced virtually complete demyelination within 24 hours of cultures of myelinated CNS tissues.¹⁶ In one series of experiments, it has been noted with electron microscopy examination that ultrastructural changes occur extremely rapidly after application of the serum; indeed, as soon as five minutes after the application of the serum.¹⁷ The test is also rather sensitive. In one large series of patients, 80% of the sera from patients with multiple sclerosis was positive. It is interesting to note that in this large series of patients, there were some conditions that gave a falsely positive test with strong reactions having been noted.¹⁸ Listed among these conditions were patients with collagen diseases affecting the central nervous system who also had significant titers of antinuclear antibodies.

Abnormal Lab Results

Several abnormal laboratory tests have been noted in patients with SLE. SLE preparations may be positive. In addition, a hemolytic anemia may be present. Falsely positive serologic tests for syphilis have been observed.⁸ Diffuse EEG abnormalities may be present. Abnormal cerebrospinal fluid examinations with elevated cell counts and protein values have been noted.⁹ It

is in immunology that the more valuable diagnostic advances have been made. Patients with antibodies to deoxyribonucleic acid (DNA) or to heart-denatured DNA in the serum or with lowered serum complement levels have been found more likely to have SLE with active renal involvement. Moreover, a fall of the serum complement level was closely associated with the onset of active nephritis.¹⁹ These immunologic and serologic abnormalities are more likely to be present with active disease.

The most common confirmatory lab test used in periarthritis is that of biopsy. Indeed, no specific serologic, chemical or immunologic test for periarthritis exists. Skin, muscle, testes, viscera and nerves have all been sampled successfully in searches for possible periarthritis. Non-specific laboratory abnormalities include elevated protein and elevated cell counts in the cerebrospinal fluid, and diffuse EEG abnormalities. Occasionally, focal EEG abnormalities have been noted, usually associated in patients with seizure disorders.^{10,11}

Electromyography (EMG) and Electrodiagnosis

The effects of demyelination on nerve conduction are similar whether the demyelination is located centrally or peripherally. In the presence of this type of lesion, nerve conduction is blocked or impaired. With the involvement of central nerve tissue, the latency of certain multisynaptic reactions involving centrally located neurons is prolonged. This observation is the basis for the clinical use of the average cerebral evoked potentials. The stimulus of a square electric pulse of some 100 microseconds duration is delivered to the appropriate fingers or nerve trunk and the sensory potential recorded over the appropriate parietal lobe. As the amplitude of each evoked potential is low, some clinicians have averaged up to 300 potentials. Excess alpha rhythm has been avoided by encouraging the patient to remain alert.

This central sensory evoked potential may be easily compared with the sensory evoked potential of the peripheral nerve. In patients with multiple sclerosis, the peripheral nerve's sensory evoked potential and distal latency remain normal while the central latency of the cerebral evoked potential is prolonged. This situation has been noted even in patients with multiple sclerosis in an early stage.²⁰

In patients with multiple sclerosis, upper motor neuron disease, and clinical spasticity, the

increased muscle stretch reflexes observed have a neurophysiologic equivalent in the augmented H-reflex. With this reflex, a square electric pulse is delivered to the peripheral nerve in question. The stimulus travels to the spinal cord along the sensory portion of the nerve, synapses with the motor neuron in the spinal cord, and travels down the motor neuron's axon.

This reflex is usually seen in normal (control) populations only in the posterior tibial nerve. It can be seen in other nerves only after some facilitation or stimulation. It is produced in control populations and in patients with clinical spasticity in the ulnar nerve after this reflex is facilitated. A square electric pulse is given long enough to elicit the peripheral motor response or M wave but not long enough to produce an H wave response. After an interval of up to thirty milliseconds, a longer pulse is given to elicit the H-reflex. An augmented H wave response is seen in those patients with multiple sclerosis with clinical spasticity.²¹ This test would not necessarily be positive in the early stages of multiple sclerosis.

The third test used in the evaluation of patients with multiple sclerosis is the Blink Reflex. The early component of the Blink Reflex is a result of an oligosynaptic reflex arc with connections within the pontine level of the brain and is unilateral. The late component of the Blink Reflex is a product of a polysynaptic reflex arc with connections in the pons and medulla. It is bilateral. The effect of central demyelination on this reflex would therefore be much like that described in the section on the cerebral evoked potential. Nerve conduction would be delayed.

In testing, the supraorbital branch of the trigeminal nerve is stimulated. Evoked potentials are recorded from the orbicularis oculi muscle, and the latency of the Blink Reflex measured. In patients with multiple sclerosis, the latencies of the early and late components are prolonged. In some patients these latencies are prolonged when a patient is still in an early stage of multiple sclerosis. However, return of function in patients does not always coincide with a shortening of the prolonged latency.^{22,23}

Lower Motor Neuron Involvement

With lower motor neuron involvement seen in SLE or periarthritis, a distinctive pattern emerges. Peripheral nerve conduction studies have demonstrated impaired conduction across the demyelinated segment. A flattened, pro-

longed, more complex evoked potential is present when the nerve is stimulated proximally to the segment. Often the conduction is completely blocked at the demyelinated segment and no evoked potential is observed. EMG evaluation of the peripheral nervous system is abnormal after an interval of seven to twenty-one days. In the muscles innervated by the demyelinated nerves, plexi, or spinal nerve roots, there appears prolonged insertional activity. When the muscle is at rest, fibrillation potentials, positive sharp waves, and fasciculation potentials may be noted. Upon voluntary contraction, the total maximal number of motor unit action potentials may be reduced. The firing rate of each recruited potential may be increased.

In addition, polyphasic potentials in increased numbers have been noted. The average motor unit action potential may have an increased amplitude and a prolonged duration. This total picture on EMG evaluation is known as the neuropathic pattern. When this pattern on EMG accompanies abnormal nerve conduction studies,

Table III
Lab Results in Multiple Sclerosis vs. SLE-Periarthritis

Lab Test	Multiple Sclerosis	SLE-Periarthritis
CSF exam		
Elevated Gamma globulin titers	(+)	(±)
VDRL	(-)	(-)
Abnormal colloidal gold exam	(+)	(±)
Demyelinating antibodies	(+)	(±)
EEG changes	(±)	(±)
LE prep.	(-)	(±)
Anti-DNA antibody titer elevations	(-)	(+) SLE
Serum complement level depressions	(-)	(+) SLE
Serum VDRL	(-)	(±)
Hemolytic anemia	(-)	(±)
Positive biopsy for arteritis of small & medium size vessels	(-)	(+) Periarthritis
EMG & Electrodiagnosis	(+)	
Blink Reflex abnormal		
Cerebral evoked potential abnormal	(+)	
H-reflex abnormal	(+)	
Peripheral nerve conduction abnormal	(-)	(±)
Lower motor neuron abnormalities on EMG	(-)	(±)

(+) Usually positive (-) Usually negative (±) Occasionally Positive

lower motor neuron abnormalities are prominent.^{24,25} Please see Table III for a summary of lab results.

The use of electrodiagnosis and EMG techniques offers unique advantages in helping to clarify a confusing clinical picture. In those patients with SLE or periarthritis and neuritis, the presence of lower motor neuron abnormalities would be confirmed. In those patients with multiple sclerosis, a normal peripheral nerve conduction study, normal EMG evaluation, and an abnormal cerebral evoked potential or Blink Reflex would help clarify the diagnosis. In those patients with SLE or periarthritis with central nervous system involvement and without neuritis, the diagnosis would still remain in question after EMG and electrodiagnosis. However, since SLE or periarthritis with central nervous system involvement is usually part of the active and acute phases of the disease, the use of immunologic or biopsy techniques in this situation would be helpful. These techniques would include serum complement level, levels of antibody to DNA or heat-denatured DNA, or testicular biopsy.

Conclusion

As can be seen by comparing Tables I, II and III, and the sections that they relate to, none of the three sections alone can lead to a clear differential diagnosis between multiple sclerosis on one hand and systemic lupus erythematosus and periarthritis nodosa on the other hand. However, laboratory results when used as supplementary aids to the clinical picture can produce a situation where all the available evidence may overwhelmingly point in one direction.

For example, if signs and symptoms in a patient with a confusing systemic illness point to a possible lower motor neuron lesion and this then is confirmed by electromyography and electrodiagnostic procedures, then the clinician would be pointed in the direction of periarthritis nodosa or systemic lupus erythematosus. On the other hand, in a patient with signs of upper motor neuron involvement, negative anti-DNA antibody titers, elevated Gamma globulin in the cerebrospinal fluid examination, and a prolonged Blink Reflex, in the face of normal peripheral nerve conduction and a normal electromyograph-

ic examination, would all indicate to the clinician that the diagnosis of multiple sclerosis was seriously to be considered rather than periarthritis nodosa or systemic lupus erythematosus. In all situations it is the patient as a whole that is to be considered. However, with the use of newer laboratory procedures supplementing a knowledge of the classic clinical pictures, the diagnostic conundrum can be approached after a more thorough review of the problems involved. ◀

References

A complete bibliography of "A Comparison of the Neurologic Manifestations of Systemic Lupus Erythematosus, Periarthritis Nodosa, and Multiple Sclerosis" may be obtained by writing *IMJ*, 55 E. Monroe, Suite 3510, Chicago 60603.

Getting it Together

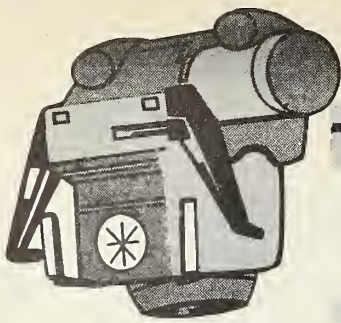
(Continued from page 143)

these individual needs and likes. The health education aspects of such a program provide knowledge about when and how to use the system, giving the elderly the ability and tools to maintain an independent lifestyle while avoiding the constraints and financial drain of institutionalized living.

It is estimated that by 1980 almost one out of every five persons in America will be 60 years or older. Thus it is fair to predict that if the present rate of scientific advance continues, we will have within our reach several additional decades of life. It is our responsibility then, to insure that medicine does all it can to raise the level of health. As Browning noted: "Grow old along with me! The best is yet to be. The last of life, for which the first was made. Our times are in His hands."¹² The elderly are in our hands. Let us make their health and nutrition our first concern. ◀

References

A list of references for "Getting it Together for the Golden Age—Obtaining Optimal Health Education for the Elderly" may be obtained by writing the *IMJ*, 55 E. Monroe, Suite 3510, Chicago 60603.



the view box

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A 49-year-old male who has had a chronic cough and weight loss for the past two years. He had previously been treated for tuberculosis, Figures 1, 2, and 3.

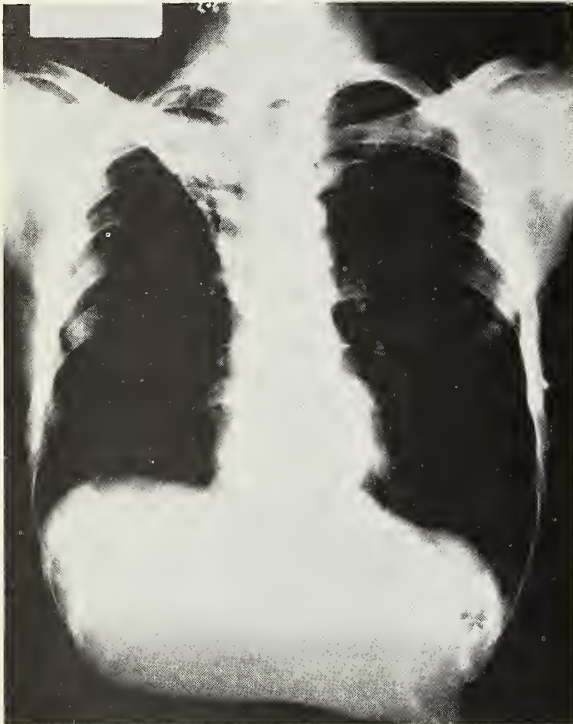


Figure 1.

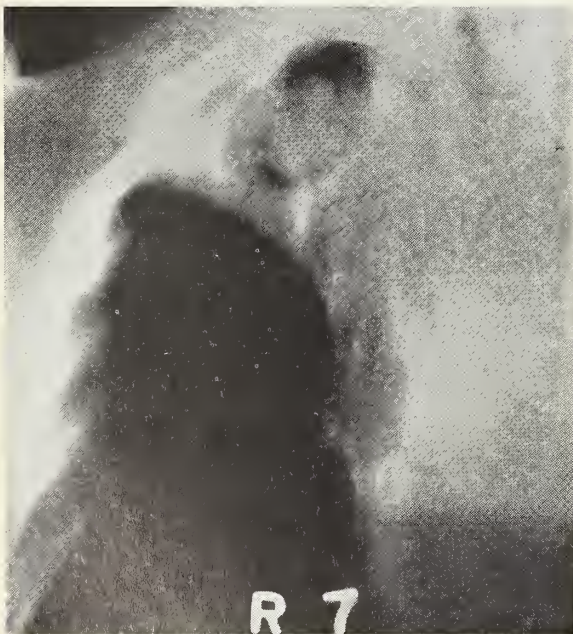


Figure 2.

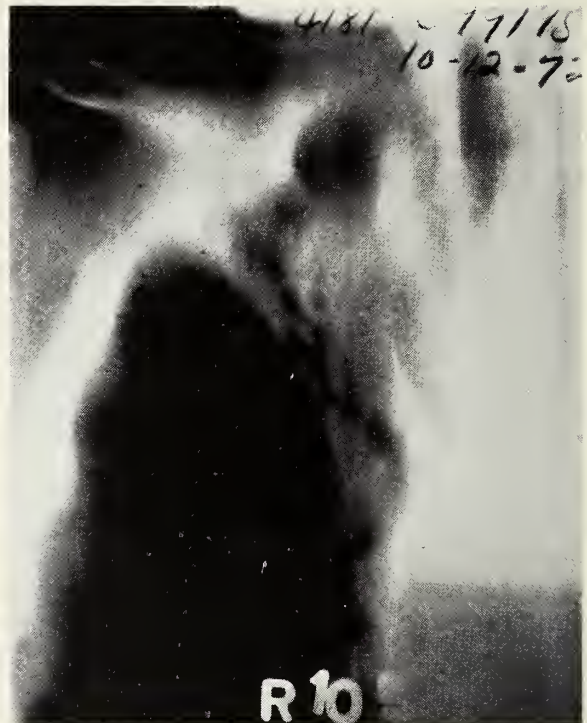


Figure 3.

What's your diagnosis?

1. Carcinoma of the right upper lobe
2. Fungus ball
3. Cavitation in far advanced tuberculosis
4. Histoplasmosis

(Answers on page 153)

Health Hazard Appraisal:

Its Application as Data Base Information and First Attempt at Measuring Its Clinical Efficacy

Part II: Preliminary Research in Clinical Efficacy

(Part I appeared in last month's issue.)

By JAMES J. MCCOY, M.D. AND JAMES M. SINACORE, B.A./BERWYN

A first attempt at measuring the Health Hazard Appraisal's (HHA) clinical efficacy has been undertaken by comparing identified precursor problems (obesity, hypertension, diabetes, etc.) from a group of HHA charts with those located on patient "active problem lists," placed there by physicians. In result, a statistical analysis showed no significant difference existed between the frequency distribution of problems located on the HHA or those on the problem lists.

In addition, the collection of grouped data has allowed for investigation of physician performance in follow-up procedures regarding patient's health risk.

The Descriptive Range and Comparative Validity of the Health Hazard Appraisal: Observations from Grouped Data

How the Health Hazard Appraisal is theoretically constructed and utilized by the health care team for an individual has been discussed (See Part I, *IMJ*, Vol 149, No. 1), let us note how information from the HHA looks on a wider scale. The assets of such procedures could allow one to evaluate this tool of prospective medicine in terms of its descriptive range and its comparative validity. In other words, we would be able to find principal problems the HHA is identifying, as well as measure its ability to find as many instances of these conditions as would be found by any other known or accepted reliable method.

In order to look at Health Hazard Appraisal information on a wide scale it is evident that we will have to garner data from a large number of HHA charts. These data can then be grouped and categorized so that an "over-all look" of the information can be analyzed. It will be evident, then, that we will be able to see:

1. The kind of problems the HHA is chiefly identifying for a given community.
2. The number of instances of each identified problem.
3. The ranked order of these problems.

Table 1 describes such information. It summarizes the precursor problems for possible future disabilities and/or causes of death as found on a large sample of HHA charts obtained from a random group of patients in the Family practice patient population.

Precursor problems were chosen as target data because it is this information which can alert the physician to possible health risk and allow time to initiate any preventive measures, if needed. Information for Table 1 was obtained from 151 HHA charts taken over a two year period. The chronological age range of these patients was 20 years to 74 years (with a mean age of 45 years) which was dispursed among 51% females and 49% males.

With some investigation, it can be seen that the nine problems listed in Table 1 are not sufficient to alert the physician to all possible disabilities or causes of death (e.g. chronic rheumatic heart disease or homicide). These are problems as identified in a given community. Situations such as chronic rheumatic heart disease have not been leading causes of death in this community.

Table 1

Rank Order	Problem	Frequency
1	Obesity	54
2	Smoking	53
3	Elevated Cholesterol	40
4	Hypertension	31
5	Lack of Exercise	27
6	Use of Seat Belts Less Than 10% of driving time	19
7	Alcohol Habits	17
8	Depression	8
9	Diabetes	5

Ranked order of precursor problems for possible future disabilities and/or causes of death as identified by the Health Hazard Appraisal.

Grouping and categorizing the data as mentioned above is indicated as a procedure for investigating the HHA's descriptive range. It gives the answer to the question "What kind of problems is the HHA chiefly identifying?" But due to the probability of there being unrealistic criteria levels of the HHA for determining what kinds of events may be considered "problems," a comparison against another known reliable descriptive method is in order.

From the above train of thought, one might initially suggest that the data in Table 1 could be compared with information obtained from a "pre-prepared" listing of precursor problems which have been created by some national or state health organization. This would then allow us to investigate the HHA's comparative validity. It would also give us the answer to the question, "Is the HHA locating *as many* problems *relative* to the national or state organization?" On closer examination, though, we must realize that the population that other organizations have used to determine a "problem rank" is very much different than the population of the immediate community in which the HHA is being utilized. Therefore, another comparison must be found.

Since it is obvious that national and state information is inaccurate in this case and that each community doesn't have its own medical data collection agency, it is the logical step to compare the information from the HHA with the only accurate source of data collection for that community—the physician. Instances of precursor problems can be located on patients' "active problem lists" and categorized like the data located on the HHA charts. These data can then be compared with the HHA data and the degree of agreement can be measured.

Table 2

Rank Order	Problem	Frequency
1	Obesity	43
2	Smoking	28
3	Hypertension	25
4	Elevated Cholesterol	12
5	Alcohol Habits	11
6	Use of Seat Belts Less Than 10% of Driving Time	8
7	Lack of Exercise	7
8	Depression	6
9	Diabetes	5

Ranked order of precursor problems for possible future disabilities and/or causes of death as identified by physicians of the Family Practice Center of MacNeal Memorial Hospital.

Table 2 is a ranked order of precursor prob-

lems for possible future disabilities as identified by physicians of the Family Practice Center of MacNeal Memorial Hospital. Information for Table 2 was obtained from the same 151 charts that were used for the data in Table 1, except that precursor problems were taken from the active problem list rather than the HHA chart. The information on the patients' problem list was placed there either prior to or after a Health Hazard Appraisal evaluation (the research team could not tell which situation existed), but in either case, the problem was placed there if the physician himself thought it should be placed in the list of active problems and dealt with as such.

To test whether any differences in the distribution of identified problem frequencies existed a chi-square statistic was performed on the data in Tables 1 and 2. The results of this test showed that no significant difference existed ($\chi^2 = 10.70$, $df = 8$).

Health Hazard Appraisal Data As Evaluative Index of Physician Performance in Prospective Medicine

From the grouped Health Hazard Appraisal data, information about physician performance in prospective medicine can be evaluated.

Table 3

Problem	Identified on HHA	Identified By Physician	Return to Only Advice Center for Given for	
			Identified Problem	Identified Problem
Obesity	54	43	6	18
Smoking	53	28	2	22
Cholesterol	40	12	9	2
Hypertension	31	25	25	0
Exercise	27	7	0	7
Seat Belts	19	8	0	8
Alcohol Habits	17	11	0	9
Depression	8	6	3	3
Diabetes	5	5	4	1

Collapsed data of Tables 1 and 2 plus data which represents the frequencies with which patients were either informed by a physician to return to the center for a follow-up for that given problem or were only given medical advice.

Table 3 contains a combination of the information of Tables 1 and 2, plus data which represents the frequency with which patients were informed by a physician either to return to the office, or were given medical advice. Thus, physician intervention, in our center for monitoring patient compliance to the prescriptions of the HHA, has been poor and a reorganization of office procedures must be incorporated.

To support this finding, statistical analyses were performed on the frequency distributions of the problems identified by the HHA and physicians as compared to the frequencies which represent patients returning to the office or at least given medical advice.* In result, the chi-square tests suggested that there were significant differences between the number of identified problems versus the number of "patient compliance" encounters.

Abraham Lincoln School of Medicine, for their help and encouragement in the preparation of this paper.

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Table 4

	Frequency of Identified Problem	Frequency of Patients Returning to Center for Identified Problem	Frequency of Patients Receiving Only Medical Advice for Identified Problem	X ²	df	significance
Identified by HHA	254	49	—	50.83	8	p<0.0005
		—	70	18.46	8	p<0.01
Identified by Physicians	145	49	—	37.28	8	p<0.0005
		—	70	17.89	8	p<0.025

Results of the chi-square tests performed on the frequency distributions of the problems identified by the HHA and physician as compared to the frequencies which represent patients returning to the office or only receiving medical advice for a particular problem.

Discussion

Although the results, as presented in this thesis, suggest a correlation between the Health Hazard Appraisal and physician criteria for determining "risk states," it should not be interpreted as proof of its clinical efficacy. Continued research, especially longitudinal studies with experimental and control groups to investigate the HHA's validity and reliability, is necessary.

Further, it must be understood that in order for the HHA to be effective, the patient must follow its prescription. It is the responsibility of the physician to monitor the patient's compliance, as he would monitor compliance to prescriptions for any type of medication. Physician performance in our center, as can be seen in Tables 3 and 4, has been poor. It has been shown that there are significant differences between the frequency of problem encounters and the number of patients who were instructed to return to the office for a given problem or were given medical advice. ◀

Acknowledgements

The authors wish to extend special thanks to Dr. Kenneth F. Kessel, M.D., A.B.F.P., Professor of Family Practice and Dr. Diamond D. Dettore, M.D., A.B.F.P., Associate Professor of Family Practice, University of Illinois,

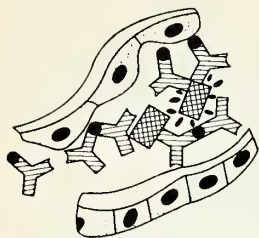
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Viewbox

(Continued from page 150)

DIAGNOSIS: *Fungus ball*—In an old chronic tuberculosis. The case represents the value of tomography in demonstrating lesions to their fullest capacity. Figure 2 demonstrates a well defined lobulated density which is outlined by air within a cavity, so called meniscus sign. Shifting the position on these patients may demonstrate the mobility of this mass. The fungus ball may be solid or multiple and varies in size and is the most frequent cause of a meniscus sign seen in a chest cavity. It occasionally causes symptoms such as hemorrhage. Figure 3 is a laminographic cut somewhat further anteriorly and demonstrates a markedly bronchiectatic dilated right upper lobe bronchus which is shifted markedly superior and represents an atelectatic right upper lobe. The fungus ball is usually the result of a collection of the mycelia of *aspergillus fumigatus*.



Seminars In Immunopathology and Oncology

RICHARD J. ABLIN, PH.D., CONTRIBUTING EDITOR

Carcinoembryonic Antigen (CEA) Test: A Review

BY PATRICK D. GUINAN, M.D., MALACHI J. FLANAGAN, M.D., AND
CHARLES F. McKIEL, M.D./CHICAGO

The carcinoembryonic antigen (CEA) test has recently been widely discussed in the medical literature as a diagnostic test for cancer. It is the only test approved by the Federal Drug Administration for sale as a blood test for cancer. This review discusses: 1) the background, 2) the biochemistry, 3) the diagnostic and prognostic accuracy, 4) the problems and 5) the future prospects of the CEA test.

Background

An antigen specific for adenocarcinoma of the colon was described by Gold and Freedman¹ in 1965. The antigen is present in tissue extracts from adenocarcinoma of the colon and in fetal colonic mucosa, but absent in extracts of normal adult colon. Subsequent studies by Gold and Freedman² showed this carcinoembryonic antigen (CEA) to be present in other malignant tumors of the gastrointestinal tract but not in any other tissue tested, normal or abnormal. Purification, partial chemical characterization, and localization of the antigen to the cell surface of the gastrointestinal epithelium has been reported.³⁻⁴

A radioimmunoassay capable of detecting

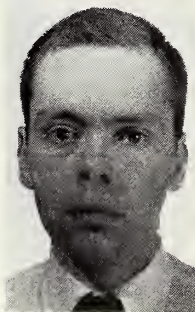
plasma levels of CEA in the nanogram range was described by Thomson et al.⁵ in 1969. With this procedure Gold and his group were able to detect the presence of CEA in the plasma of about 96% of patients with primary adenocarcinoma of the colon. Gold considered carcinoembryonic antigen to be cancer-specific and specific for tumors originating within the gastrointestinal tract.

Hansen et al.,⁶ in 1971, described a method for the radioimmunoassay of CEA using zirconyl phosphate. At critical ionic concentrations the CEA molecule undergoes a steric change which may modify the antigen site. With this procedure, Hansen et al. were able to demonstrate the presence of CEA in the plasma of 28 of 30 patients with primary adenocarcinoma of the colon.

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Biochemistry

Gold in his initial studies demonstrated that the carcinoembryonic antigen is specific for cancers of entodermally derived tissues. Other studies using the procedure of Hansen⁶ have shown many abnormal results in patients with nonentodermally derived cancers. Whether or not the two procedures measure the same antigen remains to be established. It is probable that the ion-sensitive antigenic site measured in Hansen's study is located in the same molecule as the carcinoembryonic antigen, and because of this their findings are referred to as representing CEA.

A better approach, suggested by LoGerfo,⁷ may be to refer to the present new antigen as

neoplastic or tumor-associated antigen, and to reserve the name carcinoembryonic antigen to the specific material which reacts with Gold's specific antiserum, at least until the question of identity between the two antigens has been resolved. The question of whether the original antigenic site of Gold undergoes steric change and loss of specificity under the conditions of Hansen's test, or of whether a different antigenic site is exposed on the molecule at decreased ionic strength, while very pertinent, does not detract from the clinical usefulness of the results.

Diagnosis

The test has a high degree of reliability in patients with primary colonic carcinoma (Table 1). For pancreatic carcinoma, both LoGerfo⁷

Table 1
Accuracy of the CEA Test

Tumor	Accuracy % Pos.	Author
Benign		
Pancreatitis	50%	Fuks ¹⁴
Liver Disease (benign)	45%	Moore ¹⁵
Smokers	19%	Hansen ¹⁶
Malignant		
Gastrointestinal	91%	Moore ⁸
Neuroblastoma	88%	Reynoso ⁹
Lung	77%	Vincent ¹²
Breast	68%	Chu ¹¹
Genitourinary	30%	Reynoso ¹⁰

and Moore⁸ have reported abnormal results in 100% of the cases. The test may eventually prove to be of diagnostic value, provided the elevation occurs before clinical symptoms have become evident.

In tumors which originate outside the gastrointestinal tract, the diagnostic incidence varies greatly, from a high of 88% for neuroblastoma⁹ to about 30% in genitourinary tract malignancies.¹⁰ In adenocarcinoma of the breast,¹¹ an important difference was found between patients with localized disease and patients with metastasis. Patients with nonmetastatic disease had normal results whereas in disseminated carcinoma two thirds of cases had abnormal results. CEA has also been reported in patients with lung cancer¹² and in children with neuroblastoma.⁹ This latter finding is important not only because of its potential use in diagnosis and management, but also because it raises pertinent questions regarding the nature of an antigen previously described only in association with epithelial cells. The general theory of retrogenic expression as an explanation for the appear-

ance of embryonal antigens in cancer tissues, as recently summarized by Stonehill and Bendich,¹³ would have to be expanded to include the appearance of epithelial-associated antigens in neurologically derived tumors.

Prognosis

There is a good correlation between the levels of CEA and the results of therapy in patients with colonic carcinoma. In adequately treated patients, the CEA level returns to normal following surgery or chemotherapy or both. Patients inadequately treated or with recurrence will show either a persistently high or a rising CEA level. Serial determinations of CEA may therefore be useful in following the course of the disease. In cases in which a normal value is obtained following resection of the tumor, reappearance of elevated CEA levels may signal the need for re-examination and re-evaluation of the patient, or the need to introduce a different mode of therapy.

In addition to colon malignancy, it is possible that the test may be found useful in monitoring the presence or absence of metastasis in the post-operative management of adenocarcinoma of the breast. This point is even more clearly demonstrated in the case of neuroblastoma. The CEA level may provide the needed "point of attack" for the treatment of recurrent tumor. A similar case could, in fact, be made for all the other tumors studied, such as prostatic and bladder cancers, macroglobulinemia, and multiple myeloma except that in the latter tumors the incidence of elevated CEA levels has been low.⁹

Problems

There are two major difficulties with the CEA test. The first is that while the test is quite accurate for high stage cancer, it is less accurate for early pre-clinical malignancy. Quite often a patient becomes symptomatic from his cancer before the CEA test becomes positive.

The second difficulty with the CEA test is that it is positive in several non-malignant diseases notably pancreatitis¹⁴ and cirrhosis.¹⁰ There is also a high false positive rate in heavy smokers.¹⁶ While the upper limit of normal has been 2.5 nanograms per cc of blood, raising the upper limit of normal to 5 ng/cc eliminates most of these false positives.

Future

The future of the CEA test is bright. Much research is being conducted to isolate more

specific antigens from all types of human tumors. As these antigens are purified they will be employed in more specific diagnostic and prognostic tests. In the future nonentodermal tumors will be detected with greater accuracy.

At the present time the CEA test is useful as a screening test only in high risk populations. In the future with the isolation of more specific tumor antigens, it will hopefully be used as a screening test in routine examinations.

Conclusions

The plasma assay of carcinoembryonic antigen detects advanced tumors of the gastrointestinal tract with a high degree of reliability. Whether or not the test will eventually be able to consistently diagnose preclinical disease remains to be established. An important finding is the high incidence of abnormal results in children with neuroblastoma, and in some patients with myeloma and macroglobulinemia. Independent of the obvious clinical usefulness of the test in following the course of the disease, the appearance of an epithelial antigen in non-epithelial malignant cells is of importance in cancer immunology and in our understanding of the general theory of derepression of embryonal genes during the process of malignant transformation.

The question of identity between the antigen detected by Hansen and the carcinoembryonic antigen of Gold remains unanswered. Hansen

et al. have provided some evidence to indicate that the two antigenic sites may be located in the same molecule. The carcinoembryonic antigen of Gold is specific for gastrointestinal tract cancers whereas Hansen's procedure has been able to detect the antigen in many tumors from nonentodermally derived tissues.

Independently of the eventual answer to this basic question, the test appears to be quite useful in evaluating the results of therapy and in differentiating metastatic from localized diseases in a number of different tumors. The eventual role of the CEA assay in the diagnosis of cancer in the asymptomatic patient must, however, await further clinical experience. Hopefully the future isolation of more specific tumor antigens will lead to a greater usefulness of this test.

Summary

The carcinoembryonic antigen (CEA) test is employed in the management of patients with cancer. It is accurate in the diagnosis and prognosis of gastrointestinal malignancy. It is less accurate in the management of patients with non entodermal tumors. Future isolation of more specific tumor antigens will enhance the usefulness of the CEA test. ◀

References

A list of references for "Carcinoembryonic Antigen (CEA) Test: a Review" may be obtained by writing *IMJ*, 55 E. Monroe, Suite 3510, Chicago 60603.

Second USP–NF Supplement Published February 1

A cumulative Second Supplement to USP XIX and NF XIV was scheduled for publication February 1, 1976, by the United States Pharmacopeial Convention, Inc. This combined USP and NF Supplement is arranged in a single, composite listing which emphasizes the unification of the official compendia. Pursuant to the acquisition of the National Formulary as of January 2, 1975, responsibility for all NF XIV supplements and for all future NF editions resides within the Pharmacopeial organization.

Holders of the main volume of USP XIX and NF XIV will need only one copy of the Second Supplement to bring both books up to date. The Second Supplement will be cumulative and supersedes entirely both the First Supplement and the First IRA.

Dispensing information similar to that given in USP XIX monographs of drugs dispensed di-

rectly by pharmacists to patients is provided for all comparable NF drugs.

The revisions in the Second Supplement were subjected to public review while they were being considered by the USP Committee of Revision through publication in the bimonthly *Pharmacopeial Forum*, the journal of drug standards development and official compendia revision. The wide access to the USP and NF revision process provided by *Pharmacopeial Forum* affords broad participation by medical, pharmacy, and allied sciences experts throughout the nation and aids the USP Committee of Revision in its scientific studies and deliberations.

The Second Supplement is available at \$3.00 per copy (cash with order), from the USP Convention, Inc., 12601 Twinbrook Parkway, Rockville, Maryland 20852. ◀

Clinical Use of Ultrasound In Renal Evaluation

BY RODERICK E. DARBY, M.D./HINSDALE

Ultrasound is an important diagnostic tool in the evaluation of various renal abnormalities. Diagnostic ultrasound is a non-invasive modality in which no drug, isotope nor contrast material is administered into the patient by any route. There are no known harmful effects from pulsed diagnostic ultrasound at presently employed energy levels. Diagnostic ultrasound studies cause no discomfort to the patient.

Method and Material

Renal ultrasonography is performed with a commercially available B-mode scanner using a 2.25 MHz non-focused transducer. Mineral oil is used as the couplant. With the patient in the prone position, longitudinal and transverse ultrasonograms are obtained at 1 to 2 centimeter intervals over the renal areas. Low and high gain recordings are obtained to differentiate whether a lesion is cystic or solid. The echo information is recorded from the conventional oscilloscope screen onto Polaroid film.

The diagnoses of a series of 109 renal echograms are listed in Table 1. Renal mass evaluation was the most common indication for performing renal ultrasonography in this series. Other indications for renal echography included non-visualization of the kidneys by intravenous pyelography and renal evaluation in patients

with an allergic history to iodine containing contrast materials.

Discussion

The use of ultrasound in the evaluation of renal masses has been well established.¹⁻⁴ A protocol for the workup of asymptomatic renal masses is outlined in Figure 1. Symptomatic renal masses should include angiography in the diagnostic evaluation. Following the detection of a definite renal mass by urography, including nephrotomography, diagnostic ultrasound is employed to help determine if the mass is cystic or solid in nature. If the lesion appears to be cystic by ultrasonography, renal cyst puncture is the next procedure carried out to confirm the diagnosis. However, if the lesion shows echographic characteristics of a solid mass, renal angiography is then performed. Lesions shown to be avascular by angiography may be percutaneously punctured in an attempt to establish a diagnosis before renal surgical exploration.

Occasionally, a renal lesion initially diagnosed as cystic by ultrasound is later found to be a solid mass by percutaneous puncture. Such a lesion should then be evaluated by angiography. These lesions, previously diagnosed as ultrasonically cystic are usually of a very homogenous structure with no appreciable tissue interfaces to produce echoes from the lesion centrally. This is often encountered in cases of renal neoplasm with central necrosis. There is no significant difference in the 5 year survival rates of patients with percutaneously punctured hypernephromas when compared to patients with malignant renal lesions not percutaneously punctured.⁵

Questionable or probable renal masses observed by pyelography may next be evaluated by radionuclide studies. Static radioactive isotope imaging assists in determining whether the questionable or probable mass is present or absent. If the static isotope scan indicates the presence of

Table 1

Distribution of the Renal Entities Evaluated

Diagnosis	Number
Cystic Mass	
Simple Cyst	58
Polycystic Disease	7
Solid Mass	
Hypernephroma	11
Secondary Renal Neoplasm	2
Adenoma	1
Hematoma	1
Abscess	2
Atrophy	2
Hydronephrosis	2
Normal	23
Total	109

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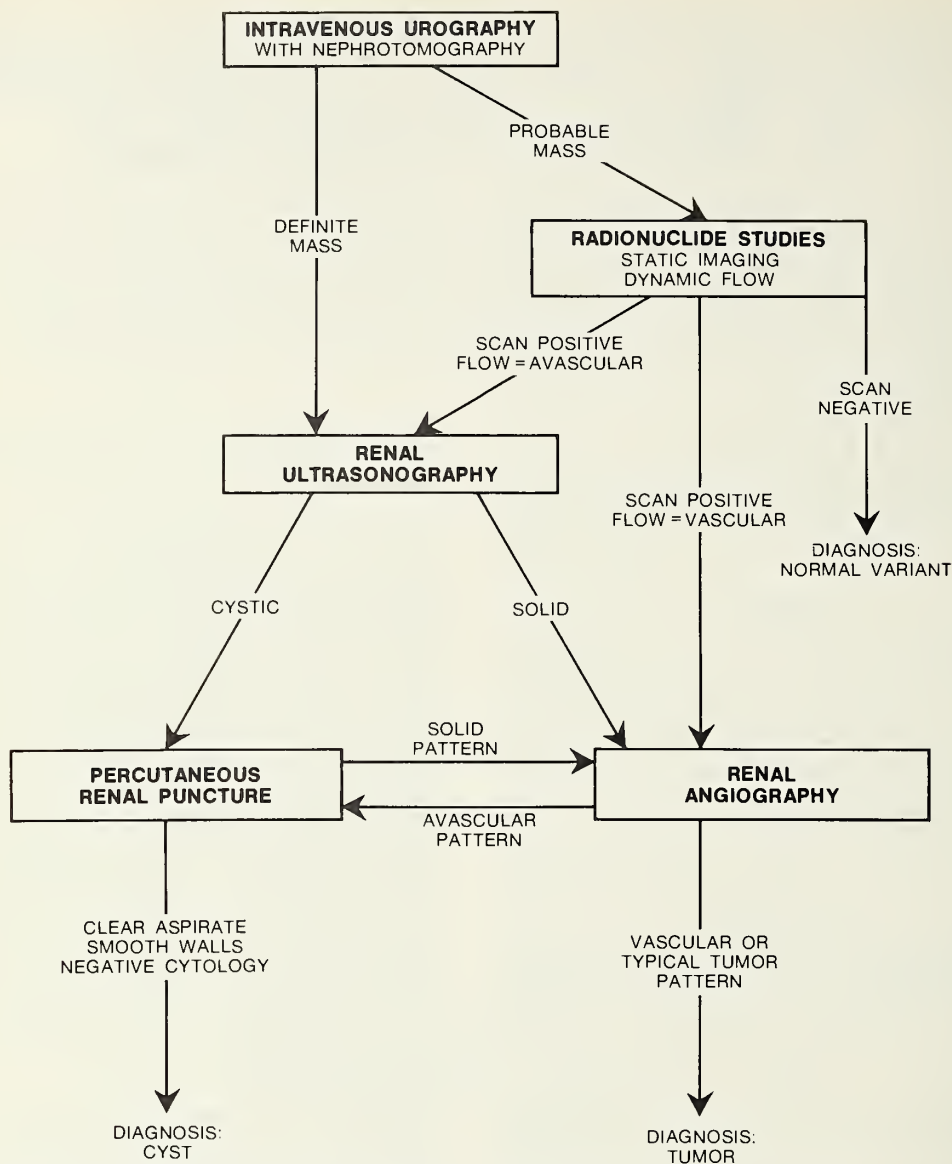


Figure 1. Protocol for the diagnostic workup of asymptomatic renal masses. Angiography should be included in the evaluation of all symptomatic renal masses.

a mass, then a dynamic renal isotope flow study can be performed to show whether the mass is vascular or avascular. If the isotope flow study indicates a vascular mass, the lesion should be further studied by arteriography; whereas, an avascular mass according to the isotope flow study should be evaluated by ultrasound.⁶

Renal Cysts

Renal cysts present as sonolucent or echofree areas even though the gain setting is increased by 5 to 10 decibels. Cysts also demonstrate a sharp, clearly defined deep echo margin representing that part of the cyst wall farthest from the transducer (Fig. 2). Present ultrasound instrumentation

permits visualization of cystic masses greater than 2 centimeters in diameter.

Ultrasound A-mode or B-mode monitoring can be employed during percutaneous puncture of renal cysts. The needle is passed through a specially constructed aspiration biopsy transducer which contains a centrally positioned hole for the needle. Such ultrasound monitoring in conjunction with fluoroscopy and infusion pyelography permits more accurate localization of the cyst during the puncture procedure. The location of the cyst walls and size can be observed during the aspiration of the cyst fluid and the injection of the contrast material into the cyst. The tip of the aspiration needle produces an echo which

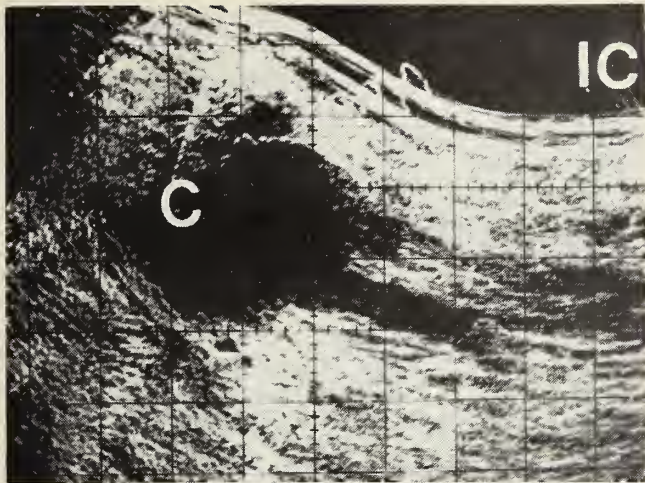


Figure 2. Solitary renal cyst. High gain longitudinal renal ultrasonogram shows an echofree volume (C) in the superior pole of the kidney measuring 5.5 cm in diameter. Iliac crest (IC).

can also be monitored by ultrasound on the oscilloscope during the procedure. This permits repositioning by slight advancement or withdrawal of the needle as required to keep the needle tip near the center of the cyst to avoid scratching or tearing the cyst walls.⁷

Polycystic or multicystic kidney disease demonstrates a typical pattern of multiple echofree areas on the ultrasonogram (Fig. 3). Again, these areas remain sonolucent after increasing the gain settings by 5 to 10 decibels. Occasionally, polycystic kidney disease is associated with polycystic disease of the liver in which multiple, clearly defined cysts are detected within the liver.

Solid Renal Masses

A solid renal mass presents as a relatively sonolucent volume at low gain settings. As the

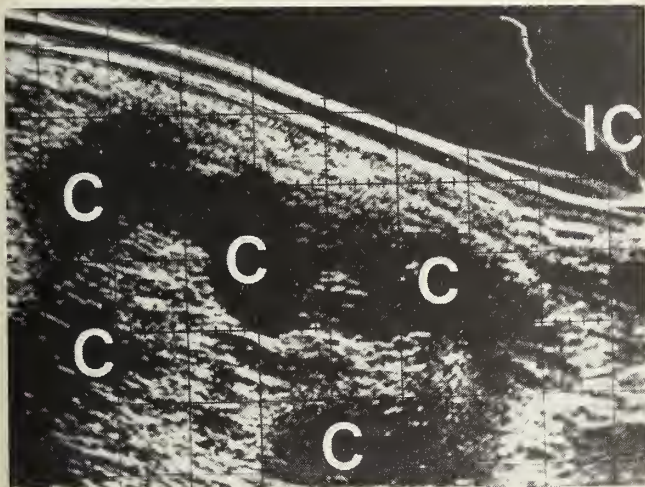


Figure 3. Polycystic Kidney. High gain longitudinal renal ultrasonogram demonstrating multiple echofree foci (Cs) within an enlarged kidney. Iliac crest (IC).

gain is increased by 5 to 10 decibels, the renal mass volume fills in with central echoes from the tissue interfaces within the solid tumor. The echo pattern of a malignant neoplasm may be homogenous or chaotic with irregular large and small echoes (Fig. 4).

In this series, the ultrasound diagnosis was correct in 92% of the cases as to determining whether a mass lesion was cystic or solid. Definite characteristics for a solid or cystic diagnosis by ultrasound was not met in 4 cases. These cases were classified as inconclusive by ultrasound and all were further evaluated by angiography or angiography and renal puncture. Three of these cases were renal cysts and one case was a solid tumor. By using the diagnostic modalities as outlined in the protocol (Fig. 1), a correct diagnosis should be possible in almost every case. In those cases going to surgery, the pre-operative diagnostic accuracy as to the solid or cystic nature of the lesion should approach 100 per cent. Following such a scheme reduces the number of angiograms and renal surgical explorations which in turn reduces the average overall morbidity and expense in those patients evaluated for renal mass.

Renal Abscesses and Adenomas

Renal abscesses and adenomas present an inconsistent echo pattern. Occasionally, renal adenomas and abscesses appear as sonolucent or echofree lesions. At other times, they may demonstrate sparsely scattered central echoes as seen in malignant renal neoplasms (Fig. 5).

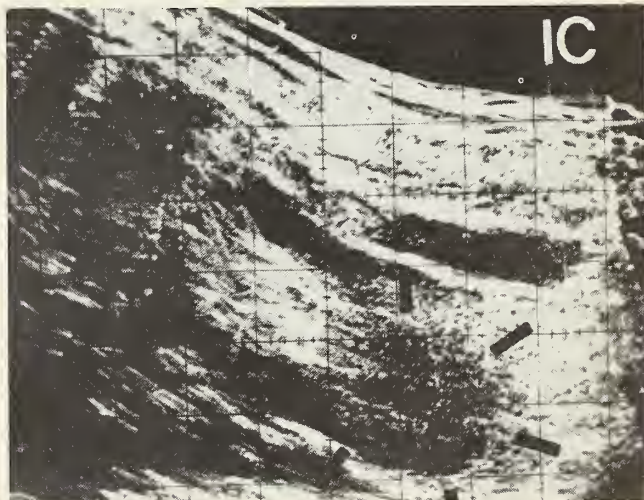


Figure 5. Renal abscess. High gain longitudinal echogram demonstrating a 4 cm mass in the inferior pole of the kidney. The mass area tends to partially fill in with fine homogeneous echoes. This pattern is seen in abscesses, tumors with central necrosis, adenomas and hematomas. Iliac crest (IC).

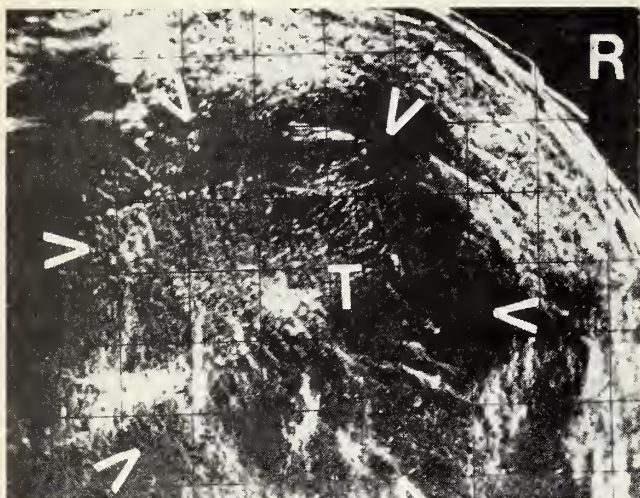


Figure 4. Hypernephroma. High gain transverse right renal echogram showing irregular fine and coarse echoes over the tumor area (T) measuring 10 cm in diameter.

Pyelographic Non-Visualization

Renal ultrasonography is often helpful in those cases in which there is non-visualization of one or both kidneys during pyelography. Ultrasound B-scan imaging can accurately demonstrate the size, shape and location of non-functioning or poorly functioning kidneys. Hydronephrosis, sometimes associated with poor or non-visualization at pyelography, appears as a cystic renal lesion at ultrasonography with the renal pelvic and calyceal echoes often arranged in a circular, oval or C-shaped pattern.⁸

In other cases of pyelographic non-visualization of the kidneys, ultrasonography may show normal sized kidneys in renal failure with azotemia or small kidneys due to atrophy or hypoplasia. Renal size, location and configuration can be determined by ultrasonography in those patients with hypersensitivity to iodine containing contrast materials.

Renal Transplants

Renal transplants can be serially and non-invasively followed by ultrasonography to determine the transplanted kidney area and volume. Transplanted kidneys undergoing rejection will demonstrate an increase in size.⁹ Post-operative hematomas and abscesses of more than 2 to 3 centimeters in diameter can be detected by ultrasound imaging.

Radiotherapy Planning

Radiation therapy planning contours over the tumor bed are easily and accurately obtained with ultrasound scanning. The position of adjacent structures, such as the spinal canal, can be determined and taken into consideration for portal localization and radiation dosage calculations.

Summary

Diagnostic ultrasound has become an integral part in the workup of renal masses. The results of renal ultrasonography usually indicate whether a mass is cystic or solid which assists in the proper selection of percutaneous renal puncture or renal angiography for further diagnostic confirmation. Other indications for renal ultrasonography include evaluation of poorly visualized or non-visualized kidneys by pyelography, renal transplant monitoring to ascertain the presence or absence of organ rejection, radiotherapy planning and the morphological evaluation of kidneys in patients allergic to iodine containing contrast materials. ◀

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MEN OF MEDICINE, 1776-1976

One Hospital — 100 Years

The development of hospitals over the past one hundred years in Central Illinois may best be, for brevity, described of one hospital.

In 1875 seven Sisters of the Third Order of Hospital Sisters of St. Francis came to Springfield, Ill. They opened a hospital in a large private residence. Two years later they built a small hospital on the present location of St. John's Hospital. The rooms were heated by stoves. The Sisters also nursed in the homes, collected food from well-wishers and lived a very frugal life. The records were kept in a large single entry ledger. These entries read like the following one: "Dec. 12—Mrs. O'Hara—fever, cause unknown, 1 wk. \$7."

As time went on more Sisters came from Germany. The hospital expanded. The new addition had central heat. By this time the hospital was considered quite modern. In the late 1890s' the first Caesarian section was scheduled by Dr. Walter Ryan. Word was sent out to the various doctors to witness this historical event. Unfortunately, the mother had a precipitate delivery.

In 1920 I came to St. John's as an intern. By this time another addition had been added and the hospital appeared ahead of its time. An addition had been added for surgery. It consisted of two large operating rooms with the sterilizing room between them. This room was enclosed by glass on each side, in full view of the rooms. A slot with a sliding panel made it convenient to pass instruments to the sterile nurse on demand. The sterile table was a long table, on which the routine equipment for each scheduled operation was placed early before the day began. This equipment was kept covered. In those days, the anesthesia was started in the hall and there was no delay between operations, only time out to change gloves. When the leading surgeons had the room for the entire day there was teamwork. The assistant would open the abdomen, assist the surgeon and close the abdomen. In the meanwhile another patient would be wheeled

in and another doctor would have the patient ready for the surgeon to remove the pathology. One of the surgeons operated Tuesday and Friday from 8 to 1 p.m. Another had Wednesday from 8—4 p.m., or later at times.

One drop of ether was the only anesthetic, except for an occasional local or gas. On warm humid days anesthesia was a problem. Relaxation of abdominal muscles and intestines were "iffy." Post-operative vomiting was usual and expected "for a day or so." The only supportive remedy was rectal drip or subcutaneous infusion of normal saline solution.

Springfield in 1920 had four avowed surgeons: Drs. Ottis, Patton, Deal and Compton. There were six EEN&T men. Much of the surgery was done by the family doctors. Over 50% of the surgery done on a typical day in 1976 did not exist in 1920. The only chest surgery I recall was a rib resection for the insertion of an irrigation tube for empyema following influenza. The pleural cavity was irrigated with Dakins solution. Cancer of the lung was not mentioned in the 1917 edition of Osler's *PRACTICE OF MEDICINE*. He discussed cancer of the pleura, but no mention of Ca of bronchi or lung. A popular method of treating osteomyelitis was to expose the diseased bone, leaving a wide open incision. Then maggots were placed in the diseased cavity and after two days ether was poured in the wound to kill the maggots. There was usually a clean wound.

The more frequent operations on a busy day consisted of thyroidectomies (before iodized salt), uterine fibroids, salpingitis, post operative (incisional) hernias, due to drainage of pelvic septic surgery, appendix, the nonsense uterine suspensions, and the controversial gallbladder. Concerning the gallbladder operation, one group held complete removal; while the other believed in leaving a cuff of the stump and inserting a drainage tube anchoring it with plain #0 catgut. This relieved the pressure from the common duct allowing any inflammation to subside. Very few surgeons attempted common

duct surgery. (Exposure was too uncertain with the ether anesthesia.) The only common duct surgery I witnessed was done repeatedly by Dr. A. J. Ochsner while I was an extern at St. Elizabeth's Hospital in Chicago.

This is one small segment of how it was 56 years ago. This hospital along with the "old

Springfield Hospital," now Memorial Medical Center, has grown far beyond one's dreams. This is only one person's eye witness of how it was. The doctors did the best they could with what was available in equipment and knowledge. If they seem stupid to you, young man, how come there are so many senior citizens?

M. E. Rolens, M.D.

Early Descriptions of Congenital Defects: Ventricular Septal Defect

By RONALD D. GREENWOOD, M.D.

Dr. John Abercrombie was a fellow of the Royal College of Physicians and Vice President of the Medico Chirurgical Society of Edinburgh. On December 5th, 1821, he read a paper before that society presenting 32 cases of clinical summaries and autopsy data. "Inflammatory Affections, Organic Affections, Rupture and Displacement of the Heart" were reviewed.¹ One of these cases was an early description of an infant with a ventricular septal defect.

An infant, born in September 1821, showed nothing unusual till four or five weeks after birth, when it was remarkable, that when he either cried, or was exposed to cold, his hands and feet became of a livid colour. At first it went off entirely, but afterwards, during the winter, his toes and fingers were always more or less livid, and when he was exposed to the air, the lividity extended to his arms and legs and appeared a little in the face. Nothing farther occurred till he was seven months and a half old, when he was suddenly seized with laborious breathing, accompanied by long and deep sighs; the pulse rapid and irregular; the action of the heart strong, but felt only at intervals; the body cold. The attack went off gradually, and afterwards recurred at intervals of about four weeks, but

became slighter. He died in the sixth attack, in October 1822. It was slighter than any of the preceeding, and only resembled syncope. In the intervals between these attacks, he enjoyed good health, and appeared as thriving as the most happy child of his age; and during the summer the livid or blue colour of his extremities had nearly disappeared, except at the time of the attack.

At postmortem, Dr. Abercrombie found:

At the upper part of the septum of the heart, there was a round opening, more than half an inch in diameter, with smooth and rounded edge, making a free communication betwixt the ventricle.

Ventricular defects were said² to have been reported by observers as early as Stensen (1638-1686); Corvisart also noted these defects.

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Acknowledgements

I am indebted to the Francis A. Countway Library of Medicine, Harvard Medical School for allowing the use of their historical materials.

Call for Bicentennial Contributions

This is the second in a series of Bicentennial articles which will appear throughout 1976 as the Illinois State Medical Society's commemoration to this Bicentennial year. We hope that you have enjoyed reading the articles about "Early Medical Practice in Illinois, Before 1800," "Medicine in the Early 1900's," and all the rest.

Anyone interested is encouraged to submit articles about the history and lore of medicine and its practice in Illinois during the past two hundred years. Anecdotal material as well as feature articles are acceptable.

Several areas of interest have been identified, not to the exclusion of others:

1. Biography—earliest physicians; colorful characters; men of distinction and accomplishment; old diaries reviewed; great men.
2. Medical institutions—schools; hospitals.

3. Great discoveries and the improvement of quality of life by physicians through social action and clinical investigation.
4. Description of medical practice in early days.
5. Oddities of medications or practice.

Manuscripts submitted will be reviewed by the Publications Committee. Material should be short and concise (i.e. articles 7-8 pages, anecdotes 3-4 pages) and will be reviewed with an eye to quality, appropriateness to the Bicentennial, authenticity, length and breadth of interest.

We are also earnestly seeking pictorial material. We need pictures of early hospitals, operations, famous men of medicine, and anything else which is appropriate to illustrate the "History of Medicine" in Illinois.

Send contributions to Jacob E. Reisch, M.D., ILLINOIS MEDICAL JOURNAL, 55 E. Monroe—Suite 3510, Chicago 60603.

“And That’s the Way it Was”

A Landmark in Medical History

Willis J. Potts’ First Blue Baby Operation

By NORMAN WELFORD, M.D.

Those who have practiced medicine for the past fifty years or longer lived through a fascinating and exciting era, unprecedented in Medical History. During the last half century, we have seen the almost complete eradication of nearly every contagious disease. The majority of medical students and most recent graduates have never observed a case of Diphtheria, Poliomyelitis, Measles, Rubella, or Tetanus. Since the introduction of antibiotics the morbidity and mortality rates from pneumonia and many other diseases have dropped to amazingly low levels. Equally outstanding in medical progress and probably one of the most momentous events in the History of American Pediatrics took place in Chicago nearly thirty years ago. And this is the way it happened. . . .

It began on the morning of September 9, 1946, and this writer was there. Diane, twenty-one months of age, was carried by her parents, Mr. and Mrs. Schnell, to the Pediatric Clinic at Children’s Memorial Hospital. The Schnells had left their home in Wisconsin early that morning in order to reach the Cardiology Clinic before noon. A few days before they had heard, over the bridge table, that two doctors at Children’s Memorial were developing a new operation which, if successful, would save the lives of even the smallest of “blue babies.” From the moment she was placed on the examining table, it was obvious Diane was an extremely ill child. She weighed only eighteen pounds. She was dyspneic, and her whole body was deeply cyanotic. She was unable to sit alone. The mildest exertion caused her to stop breathing and to lose consciousness for several seconds.

It was but a few minutes later that Dr. Stanley Gibson, Chief Cardiologist and Dr. Willis Potts, Chief Surgeon, entered the room and were greatly concerned that Diane might not resume breathing after one of her spells of apnea and unconsciousness. They placed an emergency call for oxygen. Mrs. Schnell, observing their anxiety quietly reassured the doctors by saying, “It’s all right, she’ll come out of it. These spells happen at least five or six times a day.” The parents knew, however, that Diane could not

live much longer unless something was done. She was admitted to the hospital without delay. Within a short time the diagnosis of Pulmonary Stenosis associated with Tetralogy of Fallot, was firmly established.

The parents asked both doctors—“Do you think you can do anything for our daughter?” Dr. Gibson told Dr. Potts, “Diane is a poor surgical risk. If you are going to operate, you had better do it soon because before too long she isn’t going to come out of one of those spells.” Dr. Potts took the parents aside and explained that he and Dr. Sidney Smith had been working for months on an operation for just such children as Diane, that they had performed the operation successfully on thirty dogs at Northwestern University Medical School Experimental Laboratory, but the operation had never been tried on a child. “We think the operation should work on Diane, but we can’t really be absolutely sure.” Mrs. Schnell replied that their only alternative was to take Diane home and try to make her life as happy as possible, “because it’s going to be a short one. We would like you to try your operation on our baby.”

Two days later, Dr. Willis Potts and his research associate, Dr. Sidney Smith, performed the first Aortic-Pulmonary Artery Anastomosis for relief of Pulmonary Stenosis as part of the syndrome of Tetralogy of Fallot. On opening into the chest and lifting the Aorta, the surgeons were confronted with a startling net-work of at least a dozen small arteries branching off at the very spot where a special Aortic clamp was to be placed. Since each of these small arteries had to be ligated before they could proceed, the operation was prolonged nearly two hours longer than anticipated. A longitudinal incision—one-sixth of an inch long was made in the Aorta and Pulmonary Artery and the two slits were then sutured together. As soon as the ligature was removed from the artery, and the clamp removed from the Aorta the surgeons felt a throbbing pulsation as a new flow of blood entered the artery. There was complete silence as everyone in the operating room watched a ruddy

glow come over Diane's face for the first time, and as she was wheeled to her room, both parents exclaimed, "Look, she's pink!"

Nineteen days following surgery, Diane was able to go home where she quickly learned to walk for the first time. She began to gain weight and was soon playing like other children. As she grew older she entered into sports. In college her favorite sports activities were swimming and dancing.

Since that memorable day in 1946, and before his retirement nineteen years later, Willis Potts and his colleagues performed about a thousand operations for congenital heart abnormalities. Patients came to Childrens' Memorial Hospital from nearly every state in the Union, including Canada, the British Isles and Israel, to be operated on by Dr. Potts and his team. In addition, the Potts' operation has been performed thousands of times by surgeons throughout the world. Since 1946, with progress in heart surgery, new operations have been devised for other congenital heart abnormalities, but Willis J. Potts will go down in medical history as a pioneer in cardiac surgery.

In a follow-up report of results of his first one hundred cases, six to eight years after surgical correction for Tetralogy of Fallot, the results were good in 68%, fair in 16%, one poor result, one unchanged and fourteen deaths. The hospital mortality was 9%.

Those who were privileged to work with Willis J. Potts will always remember him not only as a skillful surgeon, but as a physician who contributed a great deal to Pediatrics. In

two books, *YOUR WONDERFUL BABY* and *THE SURGEON AND THE CHILD*, and more than one hundred and twenty published papers, he emphasized the importance of love and affection in the recovery of children from pediatric surgery. He was one of the first to advocate unlimited visitation by parents of hospitalized children because he was convinced that little children need their parents near them during periods of surgical and medical crises.

If one were to draw a parallel between the surgical contributions of Willis J. Potts, and the Bicentennial, it would have to be said he exemplified the "Spirit of 1776" by setting free the thousands of children throughout the world who otherwise would not have lived to enjoy Freedom.

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Acknowledgements

The Writer wishes to express appreciation for the assistance given me by Betsy McCormick, Supervising Librarian of the Joseph Brennemann Library at Children's Memorial Hospital in collecting the bibliography.

County's First Physician Settled Near Pinkstaff

Illinois during the period when these records began was a wilderness. When admitted to the Union in 1818 its total population was less than 40,000 people. Settlements in this area were limited to a narrow strip a few miles deep along the Wabash river consisting of villages on Allison Prairie, Russellville and St. Francisville. The latter was the first village in our county. In what is now Lawrence County there were very few settlers west of the Embarras River until after 1815 or 1816. Indian massacres had occurred near here between 1812 and 1815 and a

settler was killed north of the present city of Lawrenceville in 1820. It is somewhat difficult for one of our citizens to imagine that this was still Indiana country about 150 years ago. Travelling across the state from Vincennes to St. Louis on the Buffalo trace was a dangerous adventure which few would undertake without having several well armed companions along. There were highway men and bandits along the way in addition to the danger from Indians. As more settlers arrived after 1815 or 1816 and moved deeper into the territory a county or-



ganization was needed and the people needed physicians.

Lawrence County was organized in 1821 and Lawrenceville was only a tiny village at that time. Its important assets consisted of the DuBois mill on the Embarras River. Two very good fords across this stream, one at the north end of our present main street and one just north of the bridge on the old Route 50. The Vincennes, Cahokia and St. Louis trail came this way to use these fords. The mill, the fords and the St. Louis trail brought travelers and settlers into the area from all directions so the village became a trading center for a large area to the north, west and south. In addition to operating the mill the DuBois family owned 1020 acres of land where our town now stands in the center of this tract. The DuBois family also operated a distillery and sold the first merchandise here in a store which they owned in 1821.

Our settlers at first depended on physicians from Vincennes but as the population in the town and county increased other physicians arrived. Dr. Dyer Catterton came in 1820, first stopping on Allison Prairie and later locating near Pinkstaff. He was a very well educated man for his time. He had previously served in the army being with General Jackson's forces during the battle with the British at New Orleans. Dr. Catterton is buried in the Howard cemetery near the northwest corner of the Lawrenceville—Vincennes airport. Many of the physicians who are mentioned later had trades or professions in addition to practicing medicine. Some were farmers, some carpenters and many were school teachers. Most were rugged individuals who could take care of themselves under any circumstances.

As our community grew other physicians arrived. Drs. J. A. Kuykendall and Gabriel T. Cauthorn arrived in 1921. Dr. Cauthorn was educated in the academic and medical department of the University of Virginia. Most of our physicians came from east of the mountains until after 1850. Dr. T. C. Collins settled two and one half miles south of Lawrenceville in 1823. He was a descendent of the famous Cresaps who built the first fort on the Potomac river in western Maryland. His wife Rachel Ryan was

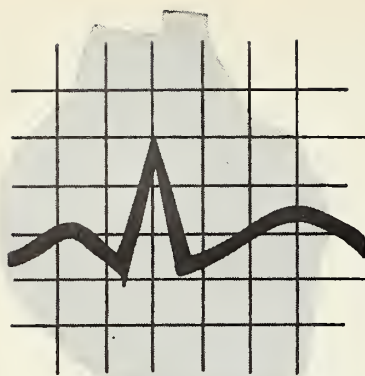
descended from the Zane family which founded Zanesville, Ohio.

The Cresaps, Collins and Zanes were all active in the Indian and all other wars of the period and were important and famous pioneers. The Cresaps and Zanes assisted in opening up the Nemacolin trail from Cumberland, Maryland across the Alleghany mountains to Fort Redstone on the Monongahela river. This opened the road to the Ohio Valley over which many of our ancestors and early settlers came through the mountains to the Ohio Valley and west. This trail was followed by George Washington and his guide Christopher Gist when he was sent to the present area around Pittsburgh to check up on the activities of the French who were active west of the mountains. Washington later lead his Virginia forces along this same road when they moved against the French. During his retreat he built Fort Necessity on this trail and was forced to surrender there. Braddock followed this same route during his disastrous expedition. Dr. Collins came over this route to Illinois, practiced in our county and is buried in the small cemetery on the east side of Route 1 just south of Indian Creek. This is the Collins cemetery.

Dr. W. G. Anderson located here in 1827. He represented our district in the Legislature in the 1840's. He was a great hunter often taking his hounds with him when riding through the country on calls. If the hounds hit a hot trail, the patients often had a prolonged wait before he arrived. While in the Legislature he was involved in a very warm debate with Abraham Lincoln. Being a rough and ready individual he apparently enjoyed a battle. He and an adversary once fought a duel using pitch forks for weapons.

Dr. J. G. Bartons came in 1834 and Dr. G. D. Wolverton in 1835. In 1836 Dr. W. B. Caldwell arrived. Dr. Hiram H. Hayes opened an office here in 1840 and acted as preceptor for Dr. Elisha C. Banks who was admitted to practice in 1843 as his partner. Dr. Thomas Washburn, a Kentuckian and a very fine gentleman, came in 1841 and Dr. William Mead in 1842. As you can see Lawrenceville and vicinity was well supplied with physicians by this time.

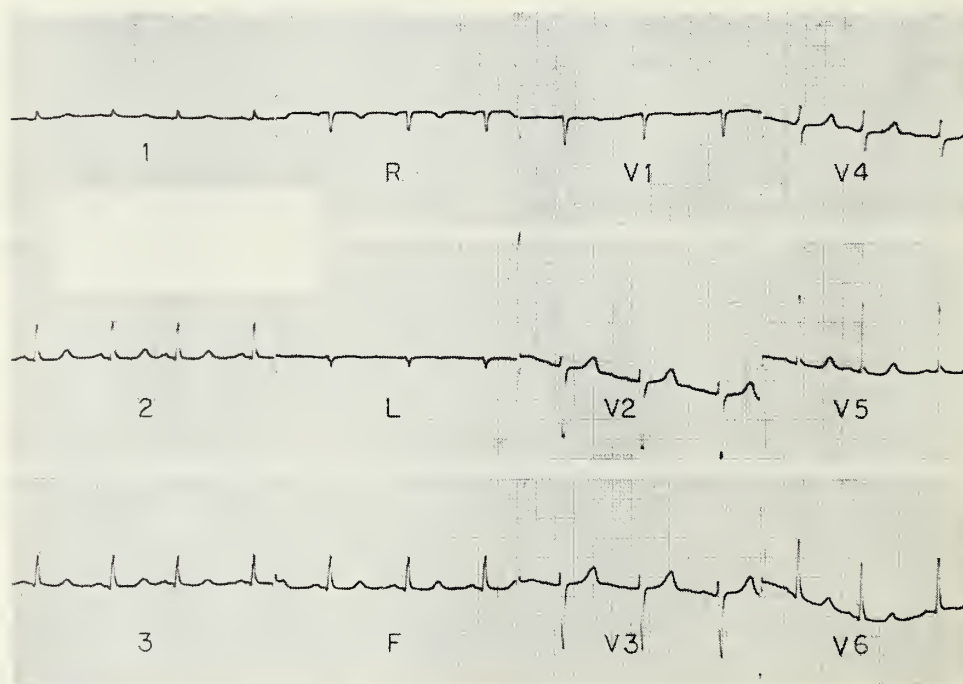
Tom Kirkwood, M.D.



ekg of the month

JOHN R. TOBIN, JR., M.S., M.D., RIMGAUDAS NEMICKAS, M.D.,
PATRICK J. SCANLON, M.D., JOHN F. MORAN, M.S., M.D.,
SARAH JOHNSON, M.D., and ROLF M. GUNNAR, M.S., M.D./
Section of Cardiology, Department of Medicine,
Loyola University Stritch School of Medicine

A fifty-three year old lady was referred for evaluation of a heart murmur which had developed in the preceding two months. She had complained of excessive coughing, leg fatigue, and retrosternal pressure brought on by climbing stairs. A low grade fever had been documented. She was treated for congestive heart failure with some improvement. A series of blood cultures did not show any growth. Her physical examination was significant for an apical pansystolic murmur and an intermittent opening snap with no diastolic murmurs. A chest X-ray showed left atrial enlargement and was otherwise normal. The ECG is shown.



Questions:

1. The ECG shows:

- A. Premature atrial beats.
- B. Left ventricular hypertrophy by voltage.
- C. Right ventricular hypertrophy.
- D. Normal ECG with sinus arrhythmia.
- E. None of the above.

2. Which of the following statements are true?

- A. This is a clear case of mitral stenosis and insufficiency.
- B. Bacterial endocarditis should be ruled out.
- C. Cardiac catheterization with angiography should be considered.
- D. An echocardiogram should be considered.
- E. All of the above.

(Answers on page 203)

Doctor's News

ISMS PROFESSIONAL LIABILITY PROGRAM—Effective January 1, 1976, Marsh and McLennan assumed administration of the ISMS-sponsored Professional Liability Insurance Program, underwritten by The Hartford Casualty Company. The program was initiated June 1, 1973, and currently includes over 6500 insured. Society membership is a requirement for enrollment. ISMS provides assistance through receipt of applications and medical review committees for underwriting and claims management.

TRIPPLICATE PRESCRIPTIONS FOR BARBITURATES—On October 9, 1975, the Illinois Dangerous Drugs Commission adopted refinements in control schedules for several drugs and, in addition, indicated that every pharmaceutical product in Schedule II would henceforth require the state-issued triplicate prescription as a "designated product." The new rules took effect November 29, 1975.

Among products previously listed in Schedule II (Illinois) but changed to Schedule III were Phenmetrazine and Methylphenidate. Previously, these were not "designated products," therefore they did not require the triplicate. However, they remain under Federal Schedule II security controls.

Previously exempted from "designated product" status were amobarbital, secobarbital, and pentobarbital, although they were in Schedule II. The Commission action mandates use of the triplicate prescription for these products, unless in combination with another active medicinal ingredient or in suppository form.

Because public hearings on the revisions were not held, ISMS was unable to respond to proposed changes last October. On December 15, a notice was received, as well as regulations. However, the regulations sent were obsolete. On January 6, the ISMS Committee on Alcoholism and Drug Dependence met with representatives of the D.D.C. in an attempt to clarify this matter (the committee had expressed concern about rumored changes last fall, and the Board of Trustees authorized a letter of inquiry at its November meeting).

ISMS is vigorously opposed to the recent changes. President-Elect Joseph Skom, M.D., has received assurances from representatives of the D.D.C. as well as Dr. Leroy Levitt, Chairman of the Commission, that the ruling will be reconsidered. He also has received apologies for an alleged clerical error which compounded the problem. "We have previously accepted application of the triple script for many drugs when factual evidence has demonstrated that the triplicate has decreased diversion to the illicit market, but this has now gone too far," Dr. Skom said. "We must act to prevent further arbitrary, capricious unnecessary increase in the burden of providing quality care to patients, when such burdens are ineffective in alleviating problems with diversion."

Official notice of the regulation changes has not been sent to individual practitioners, pharmacists or hospitals. It has been published in the legal notices section of a Chicago daily newspaper. For further information contact the Dangerous Drugs Commission, 300 North State St., Chicago 60610; (312) 822-9860.

IPS ANNUAL DINNER SCHEDULED—Francois E. Alouf, M.D., President, Illinois Psychiatric Society, has announced that the Society will hold its annual dinner on Wednesday, March 10, 1976 at the Sheraton-Chicago Hotel (6:00 p.m.). The featured speaker will be Alfred M. Freedman, M.D., Professor and Chairman, New York Medical College; Past President, American Psychiatric Association; and senior editor, *COMPREHENSIVE TEXTBOOK IN PSYCHIATRY*. Dr. Freedman will examine "Scientific and Social Policy: The Marijuana Controversy."

Reservations are required. For information, please contact the Society's offices at (312) 263-7391.

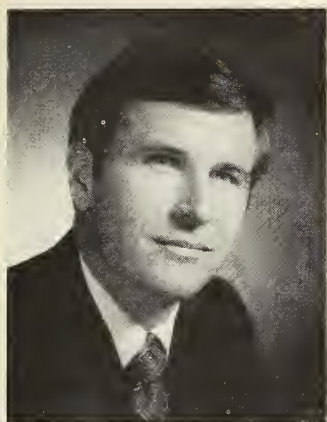
ISMS LEADERSHIP CONFERENCE TO BE HELD at Marriott Lincolnshire Hotel, February 28-29. The purpose of this two-day retreat is to update county medical society leaders on ISMS activities in key areas. The program will include workshops on various topics presented by ISMS Leadership and staff. Problems to be highlighted include: Health Service Agencies, Malpractice Legislation and Counter Suits, ISMS Professional Liability Insurance and Captive Company, Medicaid-Medicare Problems, CME Requirements and Laboratory Control, Legislation and IMPAC, AMA Delegation, PEERS, HASP, PSRO and UR Regulations, and Long Range Planning.

1976 ICCME BOARD MEMBERS AND OFFICERS—Elected to the 1976 Board of the Illinois Council on Continuing Medical Education, by the Corporate Membership (ISMS Executive Committee), were: Jacob R. Suker, M.D., *President*, Chicago; John G. Demakis, M.D., *Vice-President*, Hines; J. Ernest Breed, M.D., *Secretary*, Chicago; Robert T. Fox, M.D., *Treasurer*, Glenview; Dean Bordeaux, M.D., Peoria; Edward W. Cannady, M.D., Belleville; John Graettinger, M.D., Chicago; Chase P. Kimball, M.D., Chicago; William Lees, M.D., Lincolnwood; Boyd McCracken, M.D., Greenville; Ward E. Perrin, D.O., Chicago; Mather Pfeifferberger, M.D., Alton; Donald F. Pochlyly, M.D., Chicago; George Shropshire, M.D., Chicago; D. Dax Taylor, M.D., Springfield; Sheldon S. Waldstein, M.D., Chicago; and Thomas Zimmerman, Ph.D., Chicago.

PHYSICIANS IN THE NEWS—Leon Unger, M.D., Chicago, along with M. Coleman Harris, M.D., of San Francisco, has authored a new book entitled *STEPPING STONES IN ALLERGY, A HISTORICAL NARRATIVE*, published by Craftman Press, Minneapolis, Minn., for the American College of Allergists.

Michael Sella, M.D., has been appointed as the first pediatric neurologist at Mount Sinai Hospital. Previously he was attending physician at Beth Israel Medical Center and an associate in Neurology and Pediatrics at Mount Sinai School of Medicine, New York.

The new president of the American Congress of Rehabilitation Medicine is Henry B. Betts, M.D., who is executive vice-president/medical director of the Rehabilitation Institute of Chicago. Dr. Betts also serves as professor and chairman of the Department of Rehabilitation Medicine of Northwestern University Medical School.



President's Page

It's Been a Long Day . . .

Some random thoughts over a 1 a.m. cup of coffee:

Sorry if this sounds rushed, but I'm tired . . . just came from the emergency room . . . saw a lady who was disoriented . . . vomiting . . . said she had a severe headache for the past three days . . . she hasn't had a headache for a year . . . last one needed only two aspirin to cure . . . husband said it was a "migraine. . ."

Explained calling it a "migraine" did not necessarily make it a "migraine" and that I was more interested in a *description of complaints* than in his diagnosis . . . saw her because M.D. on call was sued by the same family twice in past 10 years . . . suit based on sciatic nerve irritation secondary to intra-muscular medication injection . . . plaintiff subsequently showed full recovery.

These past *legal* events intrude on my thinking as I evaluate her *medical* complaints . . . explained to husband that admission was indicated to control vomiting, prevent dehydration and establish observation and ultimate diagnosis . . . had another colleague examine her for second opinion to offset that *past legal* history . . . tests negative . . . slightly better now . . . but she worries me . . . will have to see her every three to four hours tonight . . . no interns or residents . . . no union either . . . just awfully good group of concerned, patient-oriented RNs and LPNs in a three-year old hospital. . . .

Still concerned about that lady and her headache, vomiting, etc. . . . maybe I should call lawyer to mull over her problem with me . . . let *him* utilize *my* training and experience to predict her future course based on all the existing variables instead of only looking *back* later and suing for what occurred . . . I'd like to see lawyers be such experts at the time *I* see that patient . . . alone . . . at night . . . not several months later . . . in the daytime . . . in their offices . . . after all facts are in. . . .

Or maybe some "informed consent" expert could come and explain the problem's ramifications to the husband (which I just did) . . . but it's a holiday evening . . . and I think they only care between 9 a.m. and 4:30 p.m., five days a week. . . .

Maybe I could get some help if one of our "consumer" activists would come and see what's being done for these people . . . in these excellent facilities . . . on this holiday . . . by these dedicated professionals . . . but not much press coverage in *that* . . . and they wouldn't be interested because the \$54-a-day single and \$48 double rates aren't high enough to draw sufficient attention to suit their goals . . . they might have to ask how a hospital can provide such high-quality care at those rates . . . they might have to reevaluate their own thoughts about unions, feather bedding, excessive administrative review, poor purchasing practices and duplication of services. . . .

Besides, if I had the lawyer, "informed consenters," and "consumer activists" present for *practical* exposure to patients at their time of need, I also would have to include bureaucrats who don't think of green card carriers as people, much less patients . . . I probably wouldn't have enough room to treat the patient. . . .

Some feel I should advertise my availability to undertake this stress, work and concern . . . they say the lack of advertising is why costs are high . . . I don't believe the conclusion fits the premise . . . people are as informed as they want to be . . . but with third parties paying the bills, most people don't care about cost. . . .

Why do I see many facets that detractors refuse to acknowledge . . . the best medical care system the world has known . . . higher costs, *but in direct proportion* to higher expenditures for goods supplied to the patient . . . patients who don't understand some things no matter how often they are told . . . patients who don't

(Continued on page 195)

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The Illinois Child Abuse and Neglect Reporting Acts Past and Present

BY DANIEL J. PACHMAN, M.D./CHICAGO

Physicians, especially those who have been working in emergency rooms or in the pediatric sections of hospitals, have for a long time been seeing children, whom they believed, had been physically abused or neglected. Early in January, 1962, at the time I was Chairman of the Mental Health Committee of the Illinois Chapter, American Academy of Pediatrics, I asked the Illinois Commission on Children to draft legislation which would make it possible for physicians to report their findings in such cases to a competent investigative agency. The Illinois Commission of Children accepted this task, and as a first step proposed legislation (passed in 1963) which placed protective services for abused or neglected children in the Department of Children and Family Services. Thus, a competent, responsible, social investigative agency was available, to whom reports could be made.

In January, 1964, the Illinois Commission on Children appointed a special committee on the Physically Abused Child whose main purpose was to draft a bill for the reporting of certain cases of physical abuse, neglect or injury in children. The Committee of 15 members was chaired by Dr. Ralph H. Kunstadter, a pediatrician, who was also a member of the Illinois Commission on Children.¹

At that time there were nine states, which had passed, or were in the process of drafting, laws relating to the reporting of cases of abuse or neglect in children. Also the United States Department of Health, Education and Welfare had proposed a Model Child Abuse Act.

At the initial meeting of the Committee on the Physically Abused Child, held January 30, 1964, committee members decided that legislation of this kind should include coverage of the following areas:

DANIEL J. PACHMAN, M.D., is Professor of Pediatrics at Rush Medical College and Clinical Professor of Pediatrics at the University of Illinois. He is a Consulting Pediatrician at Presbyterian-St. Luke's and South Shore Hospitals and on the Staff of Children's Memorial, Illinois Research, and South Chicago Community Hospitals. Dr. Pachman is a past president of the Illinois Chapter of the American Academy of Pediatrics and is at present Chairman of the Illinois Pediatric Coordinating Council.



Dr. Pachman has published extensively in the field of pediatrics and serves in numerous capacities in the cause of child care.

1. Age of the Child to be reported.
2. What is to be reported?
3. What facts should be contained in report?
4. Who must report?
5. To whom shall the report be made and shall reporting be made mandatory?
6. What is the responsibility of the agency to whom the report is made?
7. Should there be a penalty clause?
8. Should there be an immunity clause?
9. Is there a physician-patient privilege?

The Committee met at regular monthly intervals throughout the year and the final draft of the "Abused Child Bill" was passed and enacted into law on March 31, 1965.

The Age of the Child to be Reported

The Act stated that abused or neglected children under the age of 16 years were to be reported. Earlier, members of the committee felt that the age should be 18 years to conform with the definition of "child" in the Acts creating the Department of Children and Family Services and the Juvenile Court. However, criminal lawyers at that time, strenuously objected to this age because of their apprehension that rape cases would be included—and the age was reduced to 16 years.

What is to be Reported

Any child with suspected abuse by physical means, injury or neglect by "other than accidental means" was to be reported.

The Facts to be Reported

Certain factual information had to be contained in the report, which would include "the names and addresses of the child and his parents or guardian; the child's age; the nature and extent of the abuse or neglect or injury inflicted on the child, including any evidence of previous injury; and any information that the reporter believes might be helpful in establishing the cause of such physical abuse, neglect or injury and the identity of the perpetrator."

Who Must Report

Physicians, surgeons, dentists, osteopaths, chiropractors, podiatrists and christian science practitioners were required to report any child whom they believe might have been physically abused, injured, or neglected by "other than accidental means."

Reporting Made Mandatory

Reporting was mandatory to the Department of Children and Family Services and permissive to the Police Department. Reports were to be made immediately by telephone and followed within 24 hours by a written report. If a report is also made to the local law enforcement agency, the reporter is required to inform the Department of Children and Family Services. Committee members, especially physicians, believed that suspected child abuse cases should first be reported to an agency such as the Department of Children and Family Services which is mandated by the law to undertake the proper investigation and clarify the family situation. There are times when there is no doubt that a child has been physically abused or neglected, but more often the issue is not clear. Physicians are usually reluctant to expose parents to police investigation and prefer contacting a professional investigative agency. The responsibility then rests with the agency to report to the police, if their findings should indicate child abuse or neglect.

There are several other reasons why physicians would favor this method of reporting:

- A. Physicians are always seeking to protect the confidentiality of their physician-patient relationship. Investigations at the homes by the police of suspected cases, often creates unnecessary neighborhood excitement. Then too, police reports are always open to newspapers.
- B. A professional agency such as the Department of Children and Family Services can also be concerned with other children of the family, who may also be abused or neglected, and also with the need for ser-

vices for the abusing parent or guardian who may be emotionally disturbed, psychotic, or mentally deficient.

- C. Physicians in the private practice of medicine are already overburdened with paper work and would hesitate to make duplicate reports which would involve them in time consuming discussions with *two* agencies.

Responsibility of the DCFS

The Department of Children and Family Services was required to investigate cases of child abuse, neglect, or injury and offer protective services to prevent further abuse. Also, the department was required to help preserve and stabilize the family situation whenever possible.

No Penalty Clause

The original bill did not include a penalty clause for failure to report. Proponents of the penalty clause believed that reporting would be increased by this provision, but members of the Committee for the Physically Abused Child unanimously opposed any form of penalty. Where a state had included the penalty clause in its child abuse reporting law, it usually stated that it was a misdemeanor for a person to willfully violate the provision of the Act. It always has been difficult to determine when failure to report is willful. Then too, each person involved, has a moral as well as an ethical responsibility to report any suspected case of child abuse. Committee members also felt that the penalty clause might force some physicians to report cases which were doubtful—thus causing an unnecessary increase in the number of situations to be investigated. Physicians who do not report cases of child abuse or neglect are also faced with the prospect of being sued for malpractice, should the child subsequently be injured, or die as the result of further child abuse or neglect. Physicians also may be disciplined by their hospital and Medical Society for failure to comply with the intent of the law.

Immunity from Liability Granted

The person, agency, or institution making the report or involved in the investigation of the report was presumed to be doing so in good faith and was given immunity (civil and criminal) from any liability resulting from the report.

Physician-Patient Privilege Excluded

The physician-patient privilege was not a ground for excluding evidence in any judiciary proceeding resulting from the report.

Central Registry Required

The Department of Children and Family Services was also required to maintain a central agency of reported cases of child abuse and neglect.

Amendments

The Abused Child Act of 1965 has been amended in 1968, 1971 and 1973, and was amended and repealed by the Abused and Neglected Child Reporting Act on July 1, 1975. The 1968, 1971, and 1973 amendments extended the original definition of reportable abuse. The 1968 amendment added "or shows evidence of malnutrition." The 1971 amendment included children "whose death occurs from apparent injury, neglect or malnutrition, other than by accidental means, before being found or brought to a hospital." The 1973 amendment added "children who have been subjected to deliberate withholding of feeding endangering his health." The amendment of 1973 also greatly expanded the class of people who were required to report, to include school teachers, school administrators, truant officers, social workers, social service administrators, registered nurses, including practical nurses, director of staff of a nursery school and child day care center, law enforcement officer and field personnel of the Department of Public Aid, or the Cook County Department of Public Aid.

The New Reporting Act (1975)

The new Abuse and Neglected Child Reporting Bill was proposed by the Department of Children and Family Services whose legal council at that time was Mr. Frank J. Ropecky. Under the new Act child neglect must also be reported. Both child abuse and neglect can now be considered in a single court proceeding, a procedure which can save considerable time. This also allows the court to decide whether the issue is abuse or neglect and how the abuser is to be charged. Statutes which pertain to the adjudication of neglect cases are detailed within the neglect section of the Juvenile Court Act.

"Child" now means any person under the age of 18 years rather than 16 years.

Abuse for the first time has been defined.

"Abuse" has been expanded to include both sexual abuse and mental injury inflicted on a child—as well as "physical abuse by other than accidental means."

"Neglect" is defined as "failure to provide by those responsible for the care and maintenance of the child, the proper and necessary support, education, as required by law, or medical or other remedial care, recog-

nized under the State Law, other care necessary for the child's well being, or abandonment by his parent, guardian or custodian; or subjecting a child to an environment injurious to the child's welfare."

"Mental Injury" is a vague diagnosis which would have to be determined by trained physicians, neurologists, and psychologists. "Neglect" also may give concern since it can be interpreted unevenly by different people.

Classification of People Who Must Report

The new law adds coroners to the classification of those people who are required to report and deletes field personnel of the Department of Cook County Public Aid. "Any physician, hospital, surgeon, dentist, osteopath, chiropractor, podiatrist, Christian Science practitioner, coroner, school teacher, school administrator, truant officer, social worker, social service administrator, registered nurse, licensed practical nurse, director, or staff assistant of a nursery school or a child day care center, law enforcement officer, field personnel of the Illinois Department of Public Aid, must report any case of suspected child abuse and neglect to the Department of Children and Family Services. In addition, *any person* may make a report if he has a reasonable cause for suspecting child abuse or neglect."

New Sections of Interest to Physicians

Other sections in the 1975 law which are of particular interest to physicians are:

1. *Color Photographs and X-rays may be taken:*

Any person required to investigate cases of child abuse or neglect may take color photographs and X-rays of the area of trauma. This procedure is very helpful to the court since it preserves objective evidence which may have disappeared at the time of the trial. Payment for these services is dependent upon the approval of the Department of Children and Family Services.

2. *Physicians may retain the child in temporary custody:*

"Any physician may take or retain temporary protective custody of the abused or neglected child, without the consent of the child's parent or guardian, whether or not additional needed treatment is required, if the physician believes that continuing in the residence of the parent or guardian or custodian, presents an imminent danger to that child's life or health."

The physician taking or retaining a child in temporary custody must immediately notify the parents or the guardian of the child and the Department of Children and Family Services.

The Department of Children and Family Services must then initiate proceedings under the Juvenile Court Act for continued temporary custody. Temporary protective custody means custody within a hospital or other medical facility. The taking of a minor into temporary custody does not constitute a police record.

With this provision of the law, the abusing parent or guardian can no longer remove the child from needed care and protection and gives the physician the right to retain the child. If the physician believes further medical care and protection are needed, the child can then be admitted to the hospital for care and treatment. If the physician in the office or the hospital suspects child abuse or neglect, but does not wish the child to return to the home, but also believes that the child should not be hospitalized, he may indicate this in his report to the Department of Children and Family Services. The Department may then promptly take the child into temporary protective custody while the home situation is being investigated, and place the child in a temporary foster home. The parents' and the child's rights are respected by the mandate for the physician or the hospital to immediately inform the parents and the Department of Children and Family Services. The Department of Children and Family Services is required to promptly start proceedings under the Juvenile Court Act and the court will then determine whether continued custody is warranted pending adjudication. The physician who retains the child in temporary custody is *immune from any liability* resulting from such action.

3. *Legal counsel provided for the minor:*

An addition has been made to the neglect section of the Juvenile Court Act which makes it mandatory for a guardian ad litem to be appointed by the court for a minor who appears before the court as a result of a report made under the Child Abuse and Neglect Act. The minor must be represented by his own counsel unless the Guardian ad Litem is an attorney.

This provision of the new act amends the Juvenile Court Act and further protects the child by having a guardian and counsel. However, the right to independent counsel will only be meaningful if adequate time, thought, and consideration are given by the appointed attorneys to the needs of their young clients.

4. *Immunity from liability extended:*

Any person, institution or agency is immune from any civil or criminal liability resulting from the investigation of a report or from the

taking of photographs or X-rays and the retaining of a child in temporary protective custody; in addition to the immunity from liability resulting from the making of the report detailed in the previous bill.

Provisions Retained

Provisions of the previous Act which have been retained (some with minor modifications) are:

1. *Penalty for the release of Registry Data:*

A central registry of child abuse and neglect reports will be maintained by the Department of Children and Family Services and in addition makes it a Class A misdemeanor for anyone who allows or encourages the release of information contained in the registry.

2. *Physician-patient privilege waiver section expanded to include any person:*

"Any person who makes a report or investigates a report can be called upon in any judicial proceeding resulting from said report. No evidence shall be excluded by reason of any common law or statutory privilege, relating to the communications between the alleged perpetrator of abuse or neglect, or the child subject of the report under the Act and the person making or investigating the report."

This section extends the waiver beyond the previous physician-patient privilege since it includes any person.

3. *Mandatory reporting of cases* to the Department of Children and Family Services and discretionary to the Police Department remains a part of the law.

4. *There is no penalty* clause for failure to report.

5. *Spiritual Healing Clause retained:*

"A child whose parent, guardian or custodian in good faith selects and depends upon spiritual means through prayer alone for the treatment or cure of disease or remedial care may be considered neglected or abused, but not for the sole reason that his parent, guardian or custodian accepts and practices the aforementioned beliefs.* This applies to cases of children whose deaths occur from suspected abuse or neglect before being found or brought to the hospital."

Data from Child Abuse and Neglect Central Registry

The Department of Children and Family Services annually releases data, compiled from the reports of suspected child abuse and neglect made to the Central Registry during the Fiscal Year (FY-July 1-June 30). This information

*This spiritual healing clause was introduced with the 1973 amendment.

indicates that child abuse and neglect continues to be a difficult problem. These findings are quite similar to those reported on a nationwide basis.

Since the Central Registry was established a decade ago, there has been an increase of well over 500% in the number of cases reported, with Cook County and Downstate contributing equally to the rise (483 in FY '66 and 2801 in FY '75). The last two years, FY '74 and FY '75 have shown a spectacular increase (61% in FY '74 and 67% in FY '75) as a result of the broadening of required reporters mandated in the 1973 amendment. (Fig. 1) There were 1867 reported cases of child abuse in FY '74 with 36 deaths and 26 children Dead On Arrival at the hospital, and 2801 reported in FY '75, (50% increase) with 53 deaths and 40 children DOA.

The age distribution of the reported cases has remained about the same during the first eight years of reporting, with about 75% of the abused/neglected cases being 5 years and under, and 25%, 6 years and older. With the inclusion of school teachers and school administrators in the classification of those required to report, the FY '74 figures showed a marked increase of 121% in the 6 through 9 year age group over the previous year; an increase of 189% in the 10 through 13 years old age group; and an increase of 151% in the 14 and 15 years old.

The increase in school age children reported, accounted for the decrease in the 5 years old and under age group to 59% in FY '74 and 55% in FY '75.

The under one year old age group which was 23.9% in FY '73, dropped to 17.6% in FY '74 and 16.1% in FY '75. The one through two years olds had the highest percentage of suspected cases (27.9% in FY '73 and 23.2% in FY '74), but dropped below the three through five years

CHILD ABUSE CASES REGISTERED IN ILLINOIS
COOK COUNTY AND DOWNSTATE
FY July 1, 1965- June 30, 1975

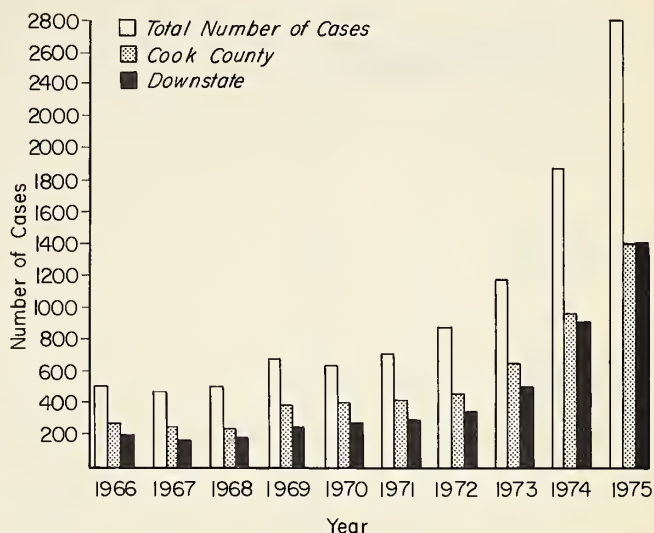


Figure 1.

old group in FY '75 to 20.6%. School age children accounted for only 25% of the total of reported cases in FY '73 but increased to 38.5% in FY '74 and 42% in FY '75.

The sex distribution showed a slight predominance of males over females; 54.5% of males to 45.5% of females in FY '74 and 51.1% of males to 48.9% females in FY '75. (Table 1).

Reporting by hospital based personnel (either physicians or others) accounted for 94% of the total in FY '73, and decreased to 66.3% in FY '74 and 50.8% in FY '75 as a result of the 1973 amendment. Schools and law enforcement officers were the next most frequent sources of reporting with a combined total of 24.6% in FY '74 and 37.1% in FY '75. Reporting by physicians in private practice was 4.9% of the total in FY '73, 3.9% in FY '74, and only 1.9% in FY '75. (Fig. 2)

Table I
Child Abuse Reports Registered by Age and Sex of Child
FY 1973, 1974 and 1975

Age	Fiscal Year 1973						Fiscal Year 1974						Fiscal Year 1975					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 1 Month	18	1.5	12	1.9	6	1.1	19	1.0	16	1.6	3	0.4	20	0.7	9	0.6	11	0.8
1 thru 5 Months	146	12.6	80	12.8	66	12.3	165	8.8	94	9.2	71	8.3	239	8.5	119	8.3	120	8.8
6 thru 11 Months	113	9.8	63	10.1	50	9.3	145	7.8	77	7.6	68	8.0	194	6.9	107	7.5	87	6.3
1 thru 2 Years	355	30.6	206	33.0	149	27.9	434	23.2	247	24.3	187	22.0	577	20.6	342	23.9	235	17.2
3 thru 5 Years	238	20.5	117	18.7	121	22.6	383	20.5	203	20.0	180	21.2	589	21.0	324	22.6	265	19.4
6 thru 9 Years	152	13.1	80	12.8	72	13.5	337	18.1	192	18.9	145	17.1	503	18.0	252	17.6	251	18.3
10 thru 13 Years	91	7.8	50	8.0	41	7.7	263	14.1	147	14.4	116	13.6	424	15.2	207	14.4	217	15.8
14 thru 15 Years	47	4.1	17	2.7	30	5.6	118	6.3	40	3.9	78	9.2	253	9.0	71	5.0	182	13.3
16 thru 17 Years	—	—	—	—	—	—	—	—	—	—	—	—	2	0.1	1	0.1	1	0.1
Unknown	—	—	—	—	—	—	3	0.2	1	0.1	2	0.2	—	—	—	—	—	—
	1,160	100.0	625	100.0	535	100.0	1,867	100.0	1,017	100.0	850	100.0	2,801	100.0	1,432	100.0	1,369	100.0
Total			53.9		46.1				54.5		45.5				51.1		48.9	

SOURCE OF CHILD ABUSE REPORTS REGISTERED
FY July 1, 1974-June 30, 1975

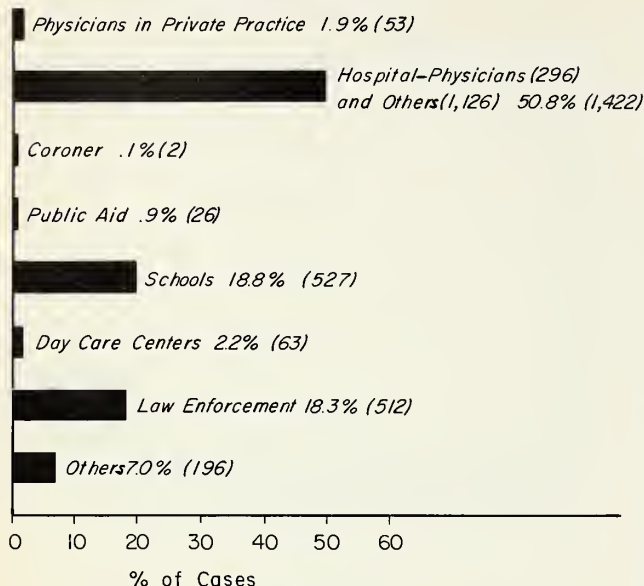


Figure 2.

Abuse by beating has accounted for over half the reported cases, 56.2% in FY '74 and 57.9% in FY '75. It can be expected that in the future this ratio will change as a result of the addition of sexual abuse, "Mental injury" and Neglect" to the definition of abuse (Fig. 3).

NUMBER AND PERCENT OF SUSPECTED ABUSERS REPORTED
FY July 1, 1974-June 30, 1975

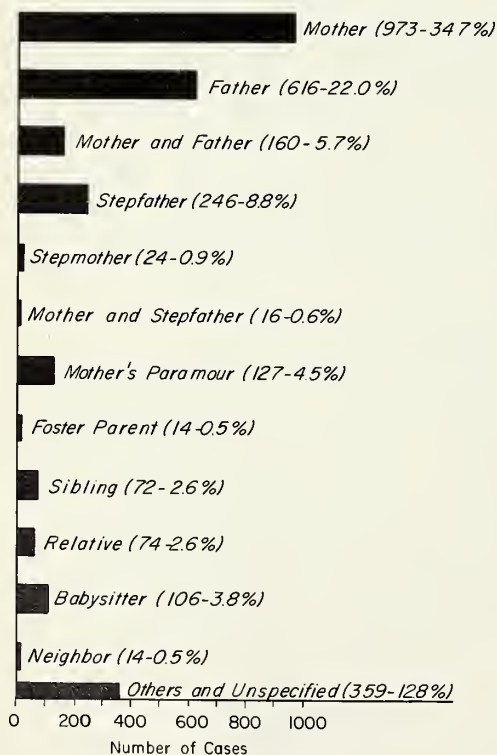


Figure 3.

The suspected abuser was the mother or father, or both, in over 60% of the reported cases. As in previous reports on child abuse, the mother was the most frequent offender with a total of 34.7%, and the father next with 22%. Other frequent abusers were stepfathers, mother's paramours and babysitters. (Fig. 4).

The Chicago area accounted for half of the reported cases (51.5% in FY '74 and 49.7% in FY '75) with East St. Louis next, (8.6% in FY '74 and 10.2% in FY '75). (Table 2) The distribution by counties is given in Table 3.

A Continuing Problem

All 50 states now have Child Abuse and Reporting Acts. The original Illinois Statute has been an excellent one and from the time of its enactment, has often served as a model for other states. Nevertheless, at present, there are a number of reasons why child abuse and neglect continues to be a medical, social and legal problem:

1. The failure of physicians and hospital personnel to recognize and report early cases of child abuse or neglect:

Instruction is needed at the medical school and post graduate levels in the early diagnosis of such patients and the great need for early reporting. Hospitals most often have the primary responsibility in the recognition and early reporting of the abused and neglected child. It has been estimated that unless abused children are identified and protected at the time of the initial trauma, as many as half of them will be

NUMBER AND PERCENT OF TYPES OF ABUSE REPORTED
FY July 1, 1974-June 30, 1975

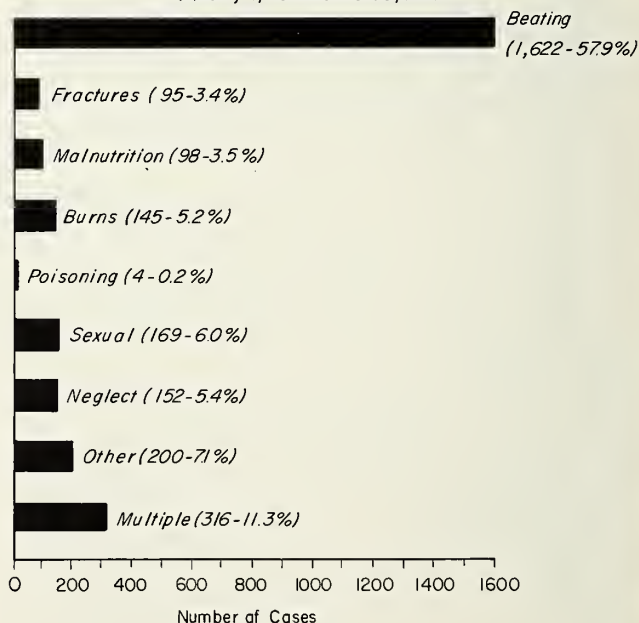


Figure 4.

Table II
Suspected Child Abuse Cases Registered by City Area
FY 1974 and 1975

City Areas	Reports		Registered		Rate Per 1000		Percent
	FY 1974		FY 1975		Children Under 18		Change
	Number	Percent	Number	Percent	FY 1974	FY 1975	FY 1974 to FY 1975
Moline	82	4.4	97	3.5	.739	.874	18.3
Rockford	95	5.1	116	4.2	.646	.789	22.1
Ottawa	43	2.3	59	2.1	.338	.464	37.2
Waukegan	70	3.8	68	2.4	.384	.373	-2.9
Aurora	70	3.8	68	2.4	.236	.229	-2.9
Joliet	68	3.6	147	5.3	.527	1.139	116.2
Quincy	17	0.9	29	1.0	.236	.402	70.6
Springfield	43	2.3	70	2.5	.393	.640	62.8
Peoria	63	3.4	154	5.5	.446	1.089	144.4
Decatur	66	3.5	101	3.6	.586	.897	53.0
Champaign	71	3.8	95	3.4	.535	.715	33.8
Salem	27	1.4	81	2.9	.287	.862	200.0
East St. Louis	160	8.6	286	10.2	.754	1.347	78.8
Marion	30	1.6	37	1.3	.365	.450	23.3
Chicago	962	51.5	1,393	49.7	.521	.755	44.8
Total	1,867	100.0	2,801	100.0	.492	.738	50.0

Table III
Registered Child Abuse Case by County of Residence
FY 1974 and 1975

County	Fiscal Year 1974	Fiscal Year 1975	County	Fiscal Year 1974	Fiscal Year 1975	County	Fiscal Year 1974	Fiscal Year 1975	County	Fiscal Year 1974	Fiscal Year 1975
Adams	4	6	Fayette	1	2	Livingston	—	3	Richland	—	1
Alexander	4	6	Ford	1	5	Logan	5	6	Rock Island	66	82
Bond	—	4	Franklin	6	4	Macon	48	52	Saline	3	4
Boone	11	9	Fulton	4	13	Macoupin	4	7	Sangamon	16	41
Brown	—	1	Gallatin	1	—	Madison	68	107	Schuyler	—	1
Bureau	4	6	Greene	3	1	Marion	14	33	Scott	3	1
Calhoun	—	2	Grundy	2	6	Marshall	1	1	Shelby	2	5
Carroll	3	1	Hamilton	2	—	Mason	5	8	Stark	—	2
Cass	2	4	Hancock	—	6	Massac	—	4	St. Clair	90	172
Champaign	38	58	Hardin	1	—	McDonough	1	—	Stephenson	15	24
Christian	12	3	Henderson	—	—	McHenry	9	5	Tazewell	20	17
Clark	2	—	Henry	3	4	McLean	8	27	Union	1	2
Clay	1	6	Iroquois	—	3	Menard	1	—	Vermillion	18	20
Clinton	—	1	Jackson	2	5	Mercer	1	1	Wabash	—	1
Coles	8	2	Jasper	1	3	Monroe	2	—	Warren	2	1
Cook	962	1,394	Jefferson	—	10	Montgomery	—	5	Washington	—	4
Chicago	845	1,150	Jersey	1	2	Morgan	3	3	Wayne	4	7
Suburbs	117	244	JoDaviess	1	2	Moultrie	1	5	White	—	1
Crawford	—	3	Johnson	—	1	Ogle	—	1	Whiteside	16	14
Cumberland	3	2	Kane	31	38	Peoria	37	121	Will	36	110
DeKalb	2	6	Kankakee	31	37	Perry	3	—	Williamson	7	5
DeWitt	7	6	Kendall	3	5	Piatt	—	3	Winnebago	64	80
Douglas	—	3	Knox	10	8	Pike	1	2	Woodford	1	2
DuPage	35	23	Lake	61	63	Pope	—	2	Out-of-State	4	5
Edgar	—	2	LaSalle	15	19	Pulaski	—	2	Unknown	—	—
Edwards	—	—	Lawrence	2	3	Putnam	—	—			
Effingham	4	5	Lee	3	5	Randolph	—	3	TOTAL	1,867	2,801

permanently injured or killed within the next several months.² Therefore, maltreated children must be protected from further injury, their wounds (physical and emotional) healed, and an attempt made to rehabilitate the abusing parent or guardian if at all possible. To aid in achieving these objectives, many hospitals, in

addition to instruction of their emergency room personnel, have established child abuse committees. This committee consists of pediatricians, psychiatrists, (child and adult), a hospital administrator, a psychologist and a social worker. One of the committee members, most often the social worker, serves as the coordinator. Neuro-

surgeons, orthopedic and general surgeons are also available for consultation if needed.³

The child abuse committee usually:

- A. determines whether or not borderline cases should be reported.
- B. investigates the family background and the possible causes for abuse and neglect.
- C. recommends treatment for both the affected child and the abusing parent or guardian.

There is also a great need to increase the reporting of child abuse and neglect by physicians who are in private practice. The Illinois experience of less than 2% of the total percent of abuse and neglect cases being reported by physicians in private practice, is similar to the findings in other states. Most physicians, who are not based in medical centers, are hesitant to become involved in a situation which might result in their time-consuming appearances in court, and in this respect there is a need for physicians, lawyers and jurists to work together to lessen the physician's burden. Despite this deterrent, physicians have a moral, as well as an ethical responsibility to do everything they can to carry out the intent of the law and prevent maltreatment of children.

Public awareness of the extent of child abuse and neglect cases and its consequences would also considerably help in the early discovery of many unfortunate children.

2. *Inadequate personnel to promptly investigate reported cases of suspected child abuse and neglect:*

Once a case is reported to the Department of Children and Family Services, it is extremely important that responsible, intelligent, qualified personnel be available promptly, to examine the home situation. The initial investigative process involved in a child/abuse neglect case is a very sensitive one, and requires the knowledge and tact of highly trained people. Whether or not the investigator succeeds in his efforts, often will depend on his method of inquiry, and his previous training and experience.

It can be expected that with the broadening of the classification of people who may report to include "any person" and with the addition of sexual abuse and "mental injury" to the definition of abuse, that the number of suspected cases to be investigated will be markedly increased. In order to do this efficiently, adequate funding is necessary to carry out the mandate given to the Department of Children and Family Services by the Act, to investigate all reports of suspected abuse and neglect within 24 hours* of receipt of the report.

*The requirement to initiate the investigation within 24 hours of receipt of a report was added with the 1973 amendment.

3. *The lack of adequate investigation and treatment of the family of a child who has been removed from the home:*

No abused or neglected child should be returned to the home of the parent or guardian unless a thorough investigation has indicated that there is little chance of a recurrence of the abuse or neglect.

Most abusing parents are uncooperative and reluctant to undergo any treatment, and considerable skill and expertise is needed to help them to resolve their problems. An excellent booklet, "Working with Abusing Parents from a Psychologic Point of View," discusses the difficulties encountered and the various modalities of treatment available, at present, for abusing parents.⁴

4. *There is a great need for sufficient, competent community services (medical, social, dental, legal, educational) to be made readily available to the child who is abused or neglected:*

Coordination of community child care services (public and private) would help greatly to improve the rapidity with which abused and neglected children receive proper treatment after they have been identified.

Recently the Child and Family Advocacy Project in Evanston has been funded by a grant from the Department of Health, Education and Welfare. The project under the direction of R. J. Meyer, M.D., and G. J. Rath, Ph.D., has coordinated Evanston's public and private resources, concerned with child abuse, in an effort to bring to the child and the abuser, prompt and effective services and treatment. Involved in the program are the University of Illinois' School of Public Health, the Design and Developmental Center of Northwestern University's Technological Institute, the Evanston Mental Health Agency and other public and private child care agencies.⁵

5. *There is a great need for improvement in the quality of the Juvenile Court:*

At present Juvenile Court judges are considered the least prestigious of all judges. Effort should be made to appoint lawyers to this bench who have been trained in the needs of the children who are being seen in the Juvenile Court. Juvenile Court judges should be cognizant of the type of services and facilities available to minor children who appear before them. It is important that they be aware of the conditions of the homes and institutions to which they may have assigned these young children and it is equally important that they receive periodic reports concerning the children's welfare.

The Juvenile Court Judge is greatly dependent upon the cooperation and the resources of public and private community child care services and in the past has not received the proper support. In the words of a now retired New York Juvenile Court Judge, "While the larger community has failed the Juvenile Courts, the courts have contributed to that failure. They have continued to function as inferior courts, even when made courts of record."⁶

Prevention

Finally, the greatest need is to prevent child abuse and neglect. About half of abusing parents have been abused during their childhood, and unless this vicious cycle is broken, little hope can be expected for a decrease in the number of maltreated children. Reporting laws, at their very best, can only uncover cases of child abuse/neglect after they have occurred. Can Children be protected from their abusing parents? Dr. C. H. Kempe believes so—he has stated recently that "predicting the families in which child abuse may occur is relatively easy; the model already exists whose implementation would allow us to reduce the incidence of child abuse and failure to thrive." Dr. Kempe also advocates the use of a "Health Visitor" for each family in which there are infants, and pre-school children. The "Health Visitor" would be a lay person, especially trained to determine whether children are being given adequate psychological, emotional and physical care by their parents or guardians. The "Health Visitor" Plan has been used successfully for sometime in Scotland, Norway, Denmark and Holland. Dr. Kempe urges its implementation in this country.⁷

Much progress has been made in the decade following the passage of the First Illinois Child Abuse Reporting Act in our knowledge of the causes and the magnitude of the problem of child abuse and neglect. However, child abuse and neglect remains as one of the most important unsolved problems of child care. For this reason, the Federal Government recently passed the Federal Child Abuse Prevention Act on January 31, 1974. Under this Act, regulations for funding child abuse/neglect programs were detailed and a National Center on Child Abuse and Neglect was established by the Secretary of the Department of Health, Education and Welfare whose purpose is:

1. to compile and analyze and publish an annual summary of recently conducted research on child abuse and neglect.
2. to develop and maintain an information

clearing house on the subject.

3. to compile and publish training material for personnel engaged in the prevention, identification and treatment of child abuse and neglect.
4. to provide technical assistance to public and nonprofit private agencies and organizations.
5. to conduct research into the causes of child abuse and neglect, its prevention, identification and treatment.
6. to make a complete report and full study and investigation of the national incidence of child abuse and neglect.

Prevention of the maltreatment of our nation's children in any form should be our ultimate goal. It is hoped that by increased research in methods of prevention; with more information on the etiology of child abuse and neglect; with early recognition and reporting of suspected cases, followed by needed protection of the abused or neglected child, and whenever possible, rehabilitation of the abusing parents; that this intolerable medical, social and legal problem will be soon alleviated. ◀

Acknowledgment

Central Child Abuse and Neglect Reporting Agency, Department of children and Family Services is the Source of all tabulated and graphic data presented. Thanks are expressed for this assistance. I wish also to thank Ms. Naomi Hiett, Executive Director of the Illinois Commission on Children for the use of the minutes of the meetings, and the correspondence relating to the drafting of the Child Abuse Bill (1965).

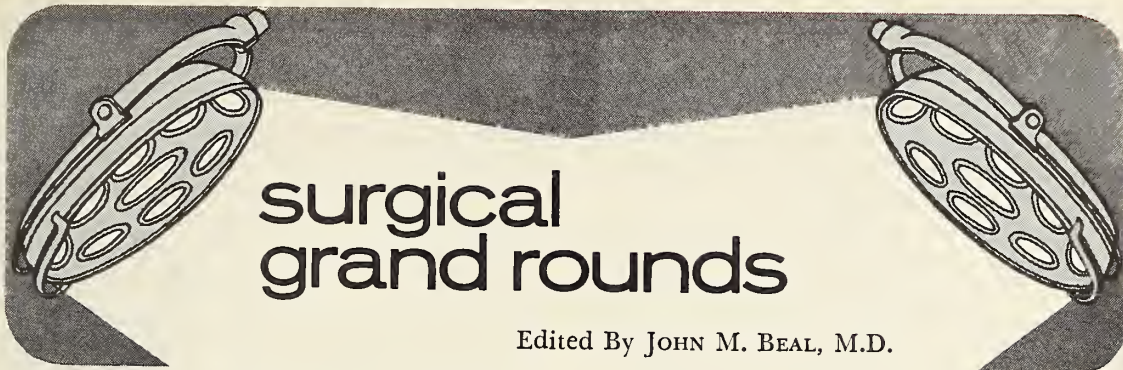
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CHILD ABUSE REPORTING NUMBERS BY COUNTY

Adams	* (217) 223-7187	Henderson	(309) 342-3154	Monroe	* (618) 345-6810
Alexander	(618) 734-0858		(309) 734-8421	Montgomery	(217) 324-2159
Bond	(618) 594-3370		* (309) 343-8109		* (217) 782-2367
	* (618) 548-1692	Henry	(309) 762-9446	Morgan	(217) 245-9689
Boone	(815) 987-7551		(309) 734-8421		* (217) 223-7187
	* (815) 987-7650		* (309) 762-9448	Moultrie	(217) 728-4214
Brown	(217) 323-2286	Iroquois	(815) 432-2629		* (217) 873-5155
	* (217) 223-7187		* (217) 443-3200		* (217) 429-5441
Bureau	(815) 879-9501	Jackson	(618) 687-1733	Ogle	(815) 987-7551
	* (800) 892-6896	Jasper	(217) 347-7913		* (815) 987-7650
Calhoun	(618) 498-4122		* (618) 548-1692	Peoria	* (309) 691-2200
	* (217) 223-7187	Jefferson	(618) 242-4630	Perry	(618) 687-1733
Carroll	(815) 232-5164		Ext. 53	Piatt	(217) 762-7833
	* (815) 987-7650		* (618) 548-1692		* (217) 763-6352
Cass	(217) 323-2286	Jersey	(618) 498-4122		* (217) 429-5441
	* (217) 223-7187		* (217) 223-7187	Pike	(217) 285-6880
Champaign	* (217) 333-1034	Jo Daviess	(815) 232-5164		* (217) 223-7187
Christian	(217) 824-9649		* (815) 987-7650	Pope	(618) 524-2428
	* (217) 782-2367	Johnson	(618) 524-2428	Pulaski	(618) 734-0858
Clark	(217) 465-5302	Kane		Putnam	(815) 879-9501
Clay	(618) 548-1957	South	(312) 896-6090		* (800) 892-6896
	* (618) 548-1692		* (312) 896-0881	Randolph	* (618) 345-6810
Clinton	(618) 594-3370	North	(312) 697-8211	Richland	(618) 393-2979
	* (618) 548-1692		* (312) 896-0881		* (618) 548-1692
Coles		Kankakee	* (815) 933-8295	Rock Island	(309) 762-9446
West	* (217) 234-8871	Kendall	(312) 896-6090		(309) 734-8421
East	(217) 345-7101		* (312) 896-0881		* (309) 762-9448
	* (217) 234-8871	Knox	(309) 342-3154	St. Clair	* (618) 345-6810
Cook	* (312) 341-8592		* (309) 343-8109	Saline	(618) 253-7604
Crawford	(618) 393-2979	Lake		Sangamon	(217) 782-4000
	* (618) 548-1692	East	(312) 249-1550		* (217) 782-2367
Cumberland	(217) 849-3318		* (312) 244-4640	Schuyler	(217) 323-2286
	* (217) 234-8871	West	(312) 546-2150		* (217) 223-7187
	(815) 758-2338		* (312) 244-4640	Scott	(217) 245-9689
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surgical grand rounds

Edited By JOHN M. BEAL, M.D.

Surgical Grand Rounds are held weekly on Tuesday at 5:00 p.m. in the Offield Auditorium of the Passavant Pavilion of Northwestern Memorial Hospital. Patient presentations from Northwestern Memorial Hospital and the Veterans Administration Research Hospital form the basis of the discussions. This case report was part of the Surgical Grand Rounds of April 22, 1975.

Cushing's Disease

Dr. C. Andrew Heiskell: A 29-year-old woman was admitted with a long history of irritability, obesity and menstrual irregularity. At the age of 17 years, after a relatively normal childhood, she began having menstrual irregularities and decreased flow. She had a gain in body weight, from 130 lbs. to 175 lbs., and in addition, noted a rounding of her face, with the development of facial hair on her cheeks and under her chin. She became short tempered and mentally depressed. Her ability to concentrate was impaired and her grades in school suffered. She was referred to an endocrinologist. Investigation resulted in the clinical impression of Cushing's syndrome. A dexamethasone suppression test was performed. Her cortisol levels were not suppressed by low doses of dexamethasone, but were suppressed by high doses of dexamethasone. This suggested a pituitary-dependent adrenal hyperplasia. Additional studies were conducted and on August 10, 1965, a bilateral adrenal exploration and a left adrenalectomy was performed, followed by pituitary irradiation (2000 rads).

Postoperative tests showed somewhat diminished steroid levels, but they did not return to normal. Symptomatically, she improved and it was not thought that further therapy was indicated. She graduated from college and obtained a government position in Chicago, but was essentially lost to follow-up from 1967 to 1973.

Eight Years After Onset

In 1973, she was seen in the Northwestern University Medical Center for the first time

because of weight gain, increasing depression, and menstrual irregularities. Physical examination was unremarkable except for truncal obesity and abdominal striae. Endocrine evaluation revealed a lack of the usual diurnal variation in the serum cortisol levels. Skull films did not show enlargement of the sella turcica. Visual field examinations were performed and were normal. The dexamethasone suppression test was repeated and again suggested adrenal hyperplasia or Cushing's disease. Because of her relatively mild symptoms, medical therapy was initiated with o,p,D,D,D, a chemotherapeutic agent that is specific for adrenal cells. When the dose was increased to obtain significant clinical effects, she developed intolerable side effects—nausea, diarrhea, fatigue, and dizziness. It was decided to remove her remaining right adrenal gland, which was accomplished through a posterior approach in April, 1975.

Dr. Philip Coogan: The adrenal gland removed in this case was essentially normal except for its weight. It weighed approximately 9½ grams, which is about twice the normal. Microscopically, there was nothing to suggest anything unusual about the gland except for some very slight increased cortical thickness that was predominantly in the fascicular layer.

The twelfth rib was removed and microscopic examination revealed an interesting change. It showed exaggerated cement lines, which suggested that this girl had been dissolving and laying down bone in an unusual fashion. This may be related to this woman's adrenal cortical dysfunction.

Some History of Cushing's Disease

Dr. Lawrence Phillips: When the patient was seen last fall, she had facial puffiness, prominence of the supraclavicular fat pads, and prominence of posterial cervical fat pads, all classic features of Cushing's syndrome.

Cushing's disease is pituitary-dependent Cushing's syndrome. Cushing's first reports in 1912 and again in 1932 emphasized the association of the syndrome with the basophil adenoma of the pituitary gland. At that time, there was uncertainty as to why basophil adenomas could cause the manifestations of Cushing's syndrome. Albright, in the 1940's, attributed the syndrome to the excess of the sugar producing hormone that was then recognized to originate in the adrenal gland. The development in the 1950's of specific assays for glucocorticoids and other adrenal hormones allowed the biochemical confirmations.

Effects of Glucocorticoids

The actions of glucocorticoids include protein wasting due to increased protein catabolism, decreased amino acid uptake, decreased protein synthesis, increased shunting of amino acids to urea and deamination, and decreased growth hormone secretion with decreased growth. There is a sparing of glucose due to both decreased glucose uptake, increased glycogen synthesis, and increased gluconeogenesis. The phenomenon of glucose sparing, decreased glucose utilization, and increased glucose production means that there is a secondary need for increased insulin release, and a secondary hyperinsulism is characteristic of patients with Cushing's syndrome.

In many body areas, there is a lysis of body fat, but there is fat deposition in the facial, cervical, and truncal areas. There are decreased inflammatory responses due to both decreased vascular and glycosidic responses, stabilization of lysosomes, decreased antibody production, decreased cell mediated immunity, and a decrease in both number and size of lymphoid cells and tissue. Decreased healing responses are due to a decrease in both hyperplasia and in collagen formation. Scar formation is poor in patients with Cushing's syndrome.

Other effects include increased synthesis of red cells, increased uric acid and calcium excretion, with renal stones in many patients, increased excretion of free water, increased appetite and other central nervous system manifestations, which include avarient behaviour, loss of sleep, and inability to concentrate.

Signs and Symptoms of Cushing's Syndrome

These actions of glucocorticoids lead to the common signs and symptoms of Cushing's syndrome. These include increased weight due to increased appetite, with increased adipose tissue deposition in the face, neck, trunk, and girdle areas. The buffalo hump which this patient had was due to increase in posterior cervical fat and is characteristic. Protein wasting leads to stretching of the skin and striae. In addition, the wasting of protein leads to easy bruisability, weakness and contributes to the decreased wound healing these patients have.

Osteoporosis is very common in patients with Cushing's syndrome. In some patients, the decreased structural support in the vertebra of the spine will lead to building of the intervertebral disks and so called "cod fish" vertebra, where both the top and the bottom of the spinal vertebra are concave due to relative bulging at the intervertebral disk. Compression fractures of the spine are very common. Glucocorticoids have a specific effect on the kidney which causes increased calcium excretion. Renal stones are present in approximately 20 percent of patients with Cushing's syndrome.

The patients have growth failure and poor response to infections. Abnormal glucose tolerance tests were found in approximately 90 percent, although frank diabetes is present in only about 20 percent. Most have hypertension. This is thought to be due to potentiation of catecholamines by glucocorticoids in addition to the salt retaining effects of the mineralocorticoids, which are also produced in increased quantities in patients with Cushing's syndrome. Abnormalities of menstrual periods are common. Usually, frank virilization is not present. Acne, deepening of the voice and enlargement of the clitoris are found when adrenal adenoma or carcinoma is present. The hematologic abnormalities include increased hemoglobin, decreased lymphocytes, and low eosinophil count. Central nervous system manifestations include mood change, insomnia, and inability to concentrate.

Biochemical Confirmation

When Cushing's disease is presumed to be present, the biochemical confirmation of the disease is made by the demonstration of loss of the normal diurnal rhythm of plasma cortisol, the loss of suppressibility of steroid secretion, and excessive basal production of steroids. When hypercortisolism is confirmed, specific etiologic diagnoses come from the application of stimulation suppression tests with dexamethasone, me-

tyrapone, ACTH, the measurement of plasmic levels of ACTH, and in some cases, more specific localizing radiologic tests.

The history and physical examination may be suggestive of the diagnosis. Patients with the rapid onset of hypokalemia with relatively few manifestations of Cushing's syndrome are more likely to have ectopic production of ACTH by a non-endocrine tumor.

Determination of the diurnal rhythm of plasma cortisol is important. Normal plasma cortisol reaches a peak in the early hours in the morning and decreases considerably during the day. A bedtime cortisol level greater than 7 micrograms % is highly suggestive of hypercortisolism.

Normally, plasma cortisol secretion reaches a nadir shortly after the patient goes to sleep and peaks shortly after awakening at 8:00 a.m. In contrast, patients with Cushing's syndrome may have elevated or may have normal plasma cortisol at 8:00 a.m., but there is relatively little diurnal fluctuation and an elevated plasma cortisol late in the day is characteristic of hypercortisolism in Cushing's syndrome.

When normal patients are given one μ g of dexamethasone at bedtime, the morning plasma cortisol, drawn at 8:00 a.m., is usually less than five μ g %. Patients with simple obesity may have plasma cortisols that are slightly elevated. Patients who are taking estrogens may have plasma cortisols the following morning after dexamethasone administration which are somewhat more elevated. In contrast, the vast majority of patients with Cushing's syndrome will have elevated plasma cortisols at 8:00 a.m. after receiving one μ g of dexamethasone at midnight.

Another Test

Measurement of 17-hydroxycorticosteroid excretion is another test for adrenal cortical function. There is a large overlap of 17-hydroxycorticosteroid excretion in patients with Cushing's syndrome when compared with obese patients and normal patients. However, when the excretion of 17-hydroxycorticosteroids is corrected for creatinine excretion, the differentiation between patients with Cushing's syndrome and patients with obesity or normals is greatly improved and a basal excretion of 17-hydroxycorticosteroids greater than 7 mg/gm of creatinine is highly suggestive of hypercortisolism.

Once hypercortisolism has been established by the abnormal screening test, the specific tests

can then be used to establish etiology of Cushing's syndrome. Patients with normal adrenal function will demonstrate suppression of their endogenous glucocorticoid production when dexamethasone is administered. After the administration of dexamethasone, 0.5 mg orally every six hours, virtually every patient with normal adrenals will excrete less than 4 mg per 24 hours.

Patients with Cushing's disease (pituitary-dependent hypercortisolism) will also have suppression of urinary excretion of 17-hydroxycorticosteroids, showing that the pituitary is responsive to circulating levels of glucocorticoid. However, although these patients may demonstrate a decrease in 17-hydroxycorticosteroid excretion, they remain above the normal level of two to four mg per 24 hours. With further administration of high dose dexamethasone, two mg orally every six hours, almost all patients with pituitary dependent adrenal hyperplasia Cushing's disease will have a greater than 50 percent fall in urinary excretion of 17-hydroxycorticosteroids and some of them will fall into the normal range.

In contrast, patients with adrenal adenoma or carcinoma and patients with hypercortisolism secondary to ACTH production by an ectopic tumor have little change in endogenous glucocorticoid production with administration of dexamethasone. When ACTH is administered to patients with the bilateral adrenal hyperplasia in ectopic ACTH or Cushing's disease, an increase in 17-hydroxycorticosteroid excretion is observed. In contrast, patients with adrenal tumors have glucocorticoid production which is more fixed, less ACTH responsive, and there is little change in hydroxycorticoid steroid excretion when patients with adrenal tumors are treated with exogenous ACTH.

When normals are given metyrapone, the 11-hydroxylation step in synthesis of cortisol is blocked. This decreases the feedback of cortisol on the pituitary gland and hypothalamus, ACTH increases, and the total quantity of 17-hydroxycorticosteroids in the urine increases. Patients with Cushing's disease (pituitary dependent adrenal hyperplasia) are also being stimulated by endogenous pituitary ACTH. They appear to have a high set point for feedback, for when patients with Cushing's disease are given metyrapone, even though their 17-hydroxycorticosteroid excretion is greater than normal to begin with, they still have an increase in 17-hydroxycorticosteroid excretion. In contrast, patients with adrenal adenomas or ectopic ACTH syndrome have little change in 17-hydroxycorticosteroids when metyrapone is given.

Measurement of ACTH Levels

ACTH dependence of patients with Cushing's disease is determined by measurement of ACTH levels. Patients with pituitary dependent adrenal hyperplasia Cushing's disease may have ACTH levels which are normal or mildly elevated despite very light levels of cortisol. When these patients have bilateral adrenalectomies and their cortisol levels are lowered to normal, ACTH levels rise, suggesting that the set point of ACTH production in patients with pituitary dependent Cushing's disease is abnormal. Patients with adrenal tumors have suppressed ACTH levels. Patients with ectopic ACTH syndrome have elevated levels of plasma ACTH.

Radioactive Testing

Another method for the investigation of patients with Cushing's syndrome has been developed by the nuclear medicine group at the University of Michigan. Cholesterol is the precursor of normal steroid biosynthesis. When cholesterol, tagged with radioactive iodine, is administered and the adrenal areas scanned for radioactivity seven to ten days later, patients with bilateral adrenal hyperplasia will have increased uptake of radioactivity in the adrenal regions bilaterally. In contrast, patients with adrenal tumors will have uptake only on the side of the tumor and atrophy of the adrenal with decreased uptake on the contralateral side. This test may be particularly helpful in patients who have ectopic adrenal tissue.

The particular patient that we are discussing today illustrates the value of these tests. Our patient had control hydroxycorticosteroid excretion of approximately 11 mg per day. Since her creatinine excretion was 1.25 gm per day, this basal level is greater than the normal 7mg per gm of creatinine. Her urinary-free cortisol was 423 μ g per 24 hours, considerably higher than the normal upper limited of 100 μ g.

With low dose dexamethasone, the patient had relatively little suppression of 17-hydroxycorticosteroids and minor suppression of urinary-free cortisol. When the patient was given high dose dexamethasone suppression, two mg orally every six hours, a significant suppression of 17-hydroxycorticosteroids resulted. When the patient was given metyrapone, total urinary 17-hydroxycorticosteroids increased greatly from a control level of approximately 11 mg per day to 32 and 48 mg per day, confirming the pituitary dependence of this patient's hypercortisolism.

Therapy

Some remarks concerning therapy of Cushing's syndrome are appropriate. Patients with ectopic production of ACTH usually have carcinoma of the lung or carcinoma of the pancreas, both of which are highly malignant and are generally not amenable to satisfactory surgical removal. In such patients, the Cushing's syndrome, and particularly the electrolyte manifestations, may prove a great problem because these patients may have severe hypokalemia.

Patients with adrenal tumor generally should be treated surgically. In patients with carcinoma in whom the tumor cannot be completely resected, an attempt is made to control the manifestations of Cushing's syndrome with drugs. The drug that has been most commonly used for this is o,p,D,D,D.

Our patient today had pituitary dependent Cushing's syndrome. The difficult question has been whether to approach Cushing's disease by treating the pituitary gland and thus decreasing ACTH production or by treating the adrenal gland and thereby decreasing glucocorticoid production. Total bilateral adrenalectomy cures the manifestations of glucocorticoid excess. However, these patients lack adrenal medullary production of catecholamines and, therefore, lack an epinephrine response to stress. They lack mineralocorticoids and often require mineralocorticoid replacement and they, of course, require full glucocorticoid replacement.

Treatment Directed at the Pituitary Gland

Because some patients have had successful amelioration of their Cushing's syndrome with treatment directed at the pituitary gland, a direct approach to the pituitary has been recommended as primary therapy. Some of these patients can have control of their Cushing's syndrome and not require full glucocorticoid replacement. Sella turcica enlargement is present in only about ten percent of patients with Cushing's disease at presentation, although small adenomas are found in approximately 60 percent of patients with Cushing's disease when these patients come to autopsy.

The approach to the pituitary gland has involved both surgery and irradiation. Since many of these patients do not have enlarged sellas, most neurosurgeons have been reluctant to operate on them. More commonly, they have been treated with irradiation. Conventional irradiation is limited to four or five thousand rads due to complications of cranial nerve and optic nerve

(Continued on page 191)

Recurrent Guillain-Barre' Syndrome: Case Report

BY JOHN L. BENDER, M.D. AND NEIL BROGREN, B.A./ROCKFORD

An elderly man developed four separate occurrences of Guillain-Barre' polyneuropathy over a 54 year period of time, each occurrence being preceded by a respiratory infection. Although the exact incidence is unknown, recurrence probably occurs in 4% or less of all cases.

Introduction

The first report of recurrent Guillain-Barre' syndrome was by Hoesterman in 1914. In the next fifty years, a total of fourteen reported cases of recurrences with partial to complete recovery was noted. During this time, other cases of a chronic relapsing form also were reported. In recent years, this latter type has often been related to adrenal steroid withdrawal. The following case report concerns a man who suffered from acute recurrent polyneuropathy at intervals of six to twenty-nine years. To our knowledge, this patient has **the longest history of recurrences** yet reported, extending over fifty-four years.

Case Report

The patient is a 72-year-old white married retired business executive, who presented with a recurrence of numbness and tingling of his fingers and toes on August 8, 1974.

When he was 18 years of age, he had his first attack of tingling in his hands and feet, soon followed by marked weakness and incoordination of the extremities. These symptoms had been preceded by a mild upper respiratory infection. He recovered completely within three months. His second attack, when he was 24 years of age, was again preceded by an upper respiratory in-

fection. This attack was less severe in degree and again recovery was complete in two to three months.

In 1953, the patient's then 10-year-old daughter suffered a mild respiratory infection following which she had numbness and paraparesis for two weeks with subsequent recovery.

Further Incidents

In September, 1955, the patient developed a mild upper respiratory infection. One week later, he developed tingling in his hands and feet. This was accompanied by weakness and incoordination in all extremities. Examination at this time revealed no cranial nerve involvement. He had marked weakness of both upper and lower extremities with a greater degree of distal weakness. He walked with support. Ataxia was compatible with his weakness and sensory loss. The tendon and abdominal reflexes were absent, and there was no plantar response. He had minimal pallanesthesia and a greater degree of positioning loss in the hands and feet. He refused hospitalization at that time and was treated with rest, mild passive exercises, vitamins and adrenal steroids. He again recovered to full activity in two to three months.

In February of 1959, he was examined for other causes and found to have a normal motor and sensory system with absence of the tendon reflexes. The patient remained in good health until January, 1971, when he developed diffuse headache and lethargy progressing to coma. A chronic left subdural hematoma was evacuated. At this time, barely elicitable tendon reflexes in the upper extremities, absent tendon reflexes in the lower extremities and normal abdominal reflexes were reported. He recovered from this illness with only minimal memory disturbance.

Most Recent Attack

His most recent attack of polyradiculoneuritis started in August of 1974, with a mild sore throat



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NEIL E. BROGREN, B.A., received his Bachelor's degree from Luther College in Decatur, Iowa. He graduated Magna Cum Laude. Presently he is studying at the Rackford School of Medicine.

followed by numbness in his hands and feet. This was accompanied by progressive weakness in both upper and lower extremities starting distally and ascending proximally. He complained of muscular aching and of being more conscious about his breathing, although denying shortness of breath. Neurological examination revealed a well-oriented elderly man who had normal speech. He had a marked thoracic kyphosis. The cranial nerves revealed only miotic unresponsive pupils. There was weakness of all muscle groups in the upper extremities with normal power in the lower extremities. He had dysmetria and past pointing of the hands and dyssynergia in the lower extremities. He was unsteady on standing and had a shuffling gait. The upper abdominal reflexes were absent. The only tendon reflexes present were both triceps. The sensory system was normal. The patient again refused to be admitted to the hospital at this time. Within a few days, because of progressive weakness and beginning respiratory difficulty, admission became necessary.

Hospital Findings

CBC, urinalysis, serology, chemical screening, plasma protein immunophoresis, aldolase, folic acid and vitamin B¹² blood levels were normal. Urine for porphyrins, creatine, and creatinine were normal. Glucose tolerance test: 97 mg% fasting; 188 mg% after 45 minutes; 230 mg% after 2 hours; 124 mg% after 3 hours. Chest X-ray was normal. Vital capacity on admission was 2.5 liters which rose to 3.7 liters in the next 4 days. Lumbar puncture and CSF were normal except for protein of 56 mg%. EMG and nerve conductions were performed. The left ulnar nerve conducted at 32 m/sec, left median 37 m/sec and left peroneal 29 m/sec, all abnormally low. The motor units were decreased in number, there were fibrillation potentials and positive waves. A left sural nerve biopsy was normal. A left calf muscle biopsy showed minimal neurogenic atrophy.

Recovery

The patient was treated with a short course of adrenal steroids and given mild exercises. He had gradual improvement and was able to walk short distances by the time of dismissal on the eighteenth hospital day.

One month after dismissal, he was walking with a tripod cane and was able to ascend and descend stairs under observation. He still had

weakness and numbness of hands and feet. Within two months, he was able to walk without a cane and had marked improvement of hand dexterity with only minimal numbness.

Discussion

The Guillain-Barre' syndrome implies a symmetrical polyneuritis of acute onset with variable cranial nerve involvements, severe motor disability, and usually, a lesser degree of sensory abnormality. Recurrent acute Guillain-Barre' syndrome is relatively rare. The actual incidence of recurrent Guillain-Barre' polyneuritis is unknown. In the various series mentioned by Thomas,¹ there were 12 recurrences reported in a total of 493 cases for an incidence of 2.4%. This may be an abnormally low figure, since many of the cases had been followed only a few months. This is certainly not long enough in light of the duration of intervals previously reported, from a few months to thirteen years and now with this case having an interval as long as twenty-nine years. Although the figure of 2.4% may be low, it does come close to the 4% recurrence incidence noted in another series.² Probably the only way to determine the true incidence of recurrence is to follow all cases of polyneuropathy to death.

It has been suggested by Pleasure² that polyneuritis patients who had normal CSF protein belonged in a special subgroup. He inferred that those patients who had recurrences belonged to this subgroup. On the occasion when lumbar puncture was performed our patient had moderately elevated protein. Also Heyse's patient³ had moderately elevated CSF protein on the initial episode but not with the recurrence. Probably the timing and frequency of lumbar puncture determines the incidence with which elevated protein can be found.

Causes

In the cases of recurrent or of chronic relapsing polyneuritis, only adrenal steroids, sulfonamides and porphyria have been implicated as causal agents.⁴ The majority of cases have had no apparent etiology for recurrence except as related to animal experimentation. Waksman and Adams^{5,6} were able to produce an allergic neuritis resembling the pathological and clinical picture of polyneuritis after inoculation of animals with Freund's adjuvant combined with emulsified heterologous nerve tissue. The mechanism of allergic neuritis has been thought to be a delayed reaction transmitted through sensitized lympho-

cytes which congregate in the nerve tissue. Demyelination later follows in the same areas and produces experimental polyradiculoneuritis.⁷ Wolf⁸ reported symptom recurrence and different age of lesions in monkeys receiving a single injection of heterologous brain emulsion. Wisniewski⁷ injected rabbit peripheral nerve myelin and Freund's adjuvant into monkeys and was able to produce the picture of allergic polyneuropathy. He noted not only lesions that were both acute and chronic in their appearance, but that the conversion to a chronic state was quite rapid. Since our patient had well-documented acute relapses of peripheral neuritis and his daughter had an acute attack of either peripheral neuropathy or ascending myelitis, he may have a genetically determined hyperallergenic state, triggered by the preceding respiratory infections. ◀

Acknowledgement

We wish to express our appreciation to Dr. John H. Van Landingham for the use of his notes in the preparation of this case.

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Surgical Grand Rounds

(Continued from page 188)

damage. However, it takes six months for the effects of pituitary irradiation to be manifest

and satisfactory results are only obtained in 30 to 50 percent of patients. Pituitary irradiation prior to bilateral adrenalectomy has been said to decrease the likelihood of development of sella enlargement following adrenalectomy, but the data are somewhat unsatisfactory.

Treatment with proton beam irradiation, which is currently available only in Boston and in Berkeley, allows higher dosage with higher delivery of rads to the pituitary gland. Therapy with proton beam irradiation has been said to be effective in up to 90 percent of patients.

The patient today was treated with o,p,D,D,D, a drug which is similar to DDT. It has produced almost specific atrophy of the zona fasciculata where glucocorticoids are produced and has relatively spared the zona glomerulosa where mineralocorticoids are produced.

One of its problems is its toxicity. In doses greater than 2-4 gm per day, it very commonly produces anorexia, nausea, vomiting, and diarrhea, and is also accompanied by significant incidence of skin rashes and central nervous system manifestations, which include depression and weakness. Its effectiveness has not been clearly established, particularly for long term follow-up.

Operative Approach

Dr. John Beal: Dr. Conn, would you discuss the operative approach?

Dr. Julius Conn, Jr.: We employed a posterior approach to the adrenals because this woman had had a previous laparotomy. Not only were adhesions likely, but delayed healing might be anticipated. The posterior approach requires resection of a segment of the 12th rib. We came down on the gland just beneath the posterior layer of the transversalis fascia, where the adrenal gland lay free of adhesions. It was then very easy to dissect the gland from the vena cava and control the arterial blood supply. We actually only had to expose about 2 cm of vena cava to obtain control of the short adrenal vein. Following this, the adrenal gland was free from the cava. It was unnecessary to enter the peritoneal cavity. This is an excellent approach if you know that you only have one gland to remove or if you know there is not an ectopic adrenal tumor present. ◀



report

Illinois Society
American Association of Medical Assistants

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8:30-9:00 a.m.	Coffee and rolls; registration
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Conrad Hilton — Chicago
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8:00 a.m.	Registration . . . coffee and rolls.
9:00 a.m.	Welcome: Mrs. Magda Brown, president, A.A.M.A. Illinois Society Introduction of Officers
Morning Session:	"Cleft Lip and Palate"
9:15 a.m.	"Cleft Lip and Palate—Surgical Aspects" Martin C. Robson, M.D., chief of section of plastic and reconstructive surgery, University of Chicago Pritzker School of Medicine.
9:45 a.m.	"Slide Presentation," Martin C. Robson, M.D.
10:15 a.m.	"Cleft Lip and Palate—Emotional Aspects" Jack C. Berger, M.D., psychiatric counsel to plastic surgery service, Cook County Hospital; attending staff on psychiatry, Rush-Presbyterian St. Luke's Medical Center.
10:45 a.m.	Questions and Answers
11:15 a.m.	Recess
11:30 a.m.	Luncheon
Afternoon Session	"ARTHRITIS"
12:30 p.m.	"The Extra-Articular Manifestations of Rheumatoid Arthritis" William J. Arnold, chief of section of genetic and rheumatic diseases; assistant professor of medicine and genetics, University of Illinois.
1:00 p.m.	"Arthritis—All Kinds of Trouble" Color Sound Film; courtesy of Illinois Arthritis Foundation.
1:30 p.m.	"Clinical Aspects of Juvenile Rheumatoid Arthritis" Lauren Pachman, M.D., head, division of immunology, Children's Memorial Hospital; associate professor of pediatrics, Northwestern University School of Medicine.
2:00 p.m.	Questions and Answers
2:30 p.m.	Adjournment

Mrs. Leslie Lee, *Chairman and Program Coordinator*

Mrs. Janet Binkowski, *Vice Chairman—Luncheon Arrangements*

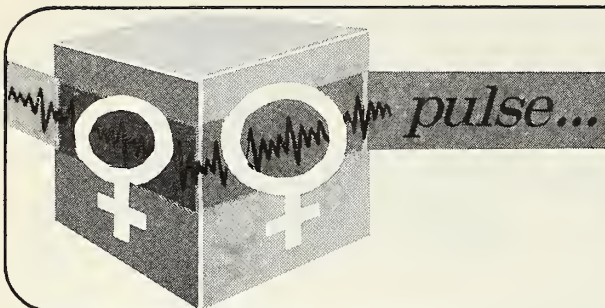
Please detach and mail to: Mrs. Anna Albert, *Registration Chairman*, 7443 Luella Ave., Chgo. 60649

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pulse... of the doctor's wife

MRS. HAROLD KEEGAN, Editor

RAPE

"Awareness" is the key to the prevention of rape, stated Officer Taya Sun of the Chicago Police Department, when she addressed the ISMS Auxiliary board at the winter meeting January 15th at the Arlington Park Hilton.

The best way to prevent a confrontation is to be aware that rape can happen to **YOU**. Use your eyes and ears and be aware of your surroundings. If you think you are being followed cross the street, walk in the middle of the street, run to a busy street, don't get away from a crowd and above all try to keep calm. Other aids are to scream. It is most helpful to scream "FIRE," this is also useful if you are trying to get in a door. Most people will not open their door if you say someone is after you. If you are stopped by an assailant, keep calm and try to put him at ease. A nervous, uneasy person is very unpredictable. Treat him as a human being. Don't call a potential rapist names or degrade him, this will only cause the assailant to be upset and more dangerous. Sometimes it is possible to talk someone out of harming you. However, if someone forces you to go with them, leave your fingerprints all over. When an assailant breaks in on you, try to get his fingerprints on something. Don't disturb the prints because they can be used as means of identification. If a rape occurs, go immediately to a hospital Emergency Room and have a smear taken. This will be used as evidence.

Officer Sun gave the following hints about good habits to develop: Always lock your car so someone cannot hide in the back seat. Always have your keys ready to unlock your car so you do not have to waste time looking for them. Keys, as well as a nail file, ballpoint pen, etc. can be used as a weapon. Mace spray is illegal, but if you feel safer with a spray, "Easy-Off" oven cleaner or hair spray can be used.

Do not resist unless you believe you will be killed anyway. Some ways of resisting that every person can use are: 1) strike for the eyes with your fingers, 2) knee to the groin, 3) kick in the shins, and 4) butt with your head.

Officer Sun also stated some ways to keep your home safe: 1) have good bolt locks on all doors, 2) install doors that do not contain a glass window, 3) do not leave a key in the lock, but keep it accessible in case of a fire, 4) invest in a burglar chain and use it, 5) check all I.D.'s on strangers (use the chain, take their name and call their place of employment), 6) if you have a peephole and do not see someone at the door after a doorbell or a knock, **do not** open the door to see if someone is really there, 7) have bars on transom-windows and trap doors, 8) do not advertise you live alone (use initials in the phone book), 9) have locks on windows and burglar stops, 10) if someone breaks in let them take what they came for and possibly you will not be harmed and 11) do not announce you are leaving and that your house is empty (stop mail, milk delivery, leave on a radio, etc.).

Officer Sun concluded with a demonstration of some methods of self-defense. ◀

Perky's Hospital Visit

The Junior Service League of Kankakee County presented a puppet show, Perky's Hospital Visit, following the board luncheon. Perky, a little pup, has his tonsils removed by Dr. Lion. The show is used to prepare youngsters for surgery and acquaint them with the hospital.

Participants in the show were Mrs. Ronald Bergeron, Mrs. Joseph Romary, and Mrs. Harold Keegan.

Nominating Committee

Mrs. Thomas Glatter, chairman of the Nominating Committee, submitted the following slate of officers for 1976-77.

<i>President</i>	<i>3rd Vice-president</i>
Mrs. John Ovitz, Jr.	Mrs. Robert Webb
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<i>2nd Vice-president</i>	Mrs. Joseph O'Donnell
Mrs. William Hodges	Mrs. Robert Kooiker

Mrs. Glatter's committee was composed of Mrs. Julian Buser, Mrs. James McDonnough, Mrs. Mahfouz Rizk and Mrs. Frank Holman.

Call to the Annual Meeting

April 25-28, 1976

Palmer House

Chicago

President's Page

(Continued from page 173)

do what they're told . . . and wonder why they don't get well . . . the patient who feels his cough—which has been present for four days—needs emergency room care at 2:00 a.m. and who then complains about the bill. . . .

Well, another long night is moving on . . . I hope the children got to bed without any problems . . . I guess I'll check that lady again . . . but I wish all those instant experts who are satisfied with simplistic solutions for their own ego trip would "butt out". . . or come and see the big picture . . . the training . . . the concern . . . the care that is given . . . why can't they base their demands on *positive* action . . . not harassment or quasi-sincere self-serving crusades. . . .

Apparently I'm too tired to undersand. . . .

Jm Ingalls, M.D.

J. M. Ingalls, M.D.

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ADVANCES IN UROLOGY, Two Days, March 8
NEWER UROLOGIC INSTRUMENTATION, One Day, March 10
PEDIATRIC UROLOGY, Two Days, March 11
NEUROLOGY, BASIC, PART I, One Week, March 15
BASIC INTERNAL MEDICINE, One Week, March 15
NEUROPATHOLOGY, One Week, March 22
DIAGNOSIS & MANAGEMENT OF PROBLEMS IN GYNECOLOGY, March 22
SURGERY OF THE G. I. TRACT, One Week, April 5
SPECIALTY REVIEW PEDIATRIC CARDIOLOGY, Three Days, April 1
SPECIALTY REVIEW PEDIATRICS, One Week, April 5
DIAGNOSTIC RADIOLOGY, One Week, April 5
BLOOD VESSEL SURGERY, One Week, April 12
SPECIALTY REVIEW UROLOGY, Four Days, April 21
STATE & NATIONAL BOARD REVIEW, BASIC, April 25

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Adenovirus Type 19 Epidemic Keratoconjunctivitis

BY STEVEN BLUTH, M.D. AND PAUL E. ROMANO, M.D./CHICAGO

Epidemic keratoconjunctivitis (EKC) has been defined¹ as that communicable disease showing few systemic symptoms, but characterized by an acute follicular or pseudomembranous conjunctivitis followed by the development of subepithelial corneal infiltrates of long duration which may result in some visual disability. Most commonly, it has been attributed to adenovirus Type 8 (AV 8). Recently, there have been reports of adenovirus Type 19 (AV 19) as the sole cause of EKC on the Eastern Coast of North America.² There have been no reports in the ophthalmic literature to date of EKC due to AV 19 in the Midwestern United States. The purpose of this communication is to report two such cases occurring in a family of four in the Midwestern United States.

Materials and Methods

Using a cotton tipped applicator stick, eye and throat swabs were taken from Case 1 on day 8 of his infection and on day 1 of Case 2's infection. Throat swabs were taken from the two other members of the family. The swabs were placed in trypticase-soy broth for transport to the laboratory. The specimens were inoculated into Rhesus monkey kidney cells and human embryonic kidney cells which were maintained on medium 199 and BME with 2% fetal calf serum.

The isolates were identified by their appearance in tissue cultures as well as by the IUDR and chloroform tests as described by Hsiung.³ Group identification was established by a complement fixation test of an extract of the infected cells which were frozen and thawed three times.⁴ Typing of the virus was done using the neutralization technique by the Virology Lab of the Illinois State Department of Public Health.

Acute and convalescent sera from Case 1 were drawn on days 8 and 14 respectively. The sera were tested against commercial adenovirus complement fixing antigen by a microtiter method.

Report of Cases

Case 1. A 28-year-old ophthalmology resident

STEVEN A. BLUTH, M.D., is on the Ophthalmology staff of the United States Air Force Medical Center, Scott AFB. He graduated from the Chicago Medical School, interned at the University of Florida Hospitals, and did his residency at Northwestern University. Dr. Bluth is a member of the AMA, ISMS, and CMS.

PAUL E. ROMANO, M.D., is Head of the Division of Ophthalmology of Children's Memorial Hospital. He is also a member of the Board of Directors of the Illinois Association of Ophthalmology and a Delegate to the Illinois Commission on Children. Dr. Romano is a member of many professional societies.



Figure 1. Case 1. On day 1 of the infection, the left lid was ptotic and edematous. The left conjunctiva was chemotic and injected.

(coauthor S.B.) was awakened during the night by a foreign body sensation in the left eye. A mucoid discharge matted the edematous left lids together. The conjunctiva was chemotic and injected (Fig. 1). The visual acuity was 20/15 in each eye. A bacterial culture was taken, and the patient was started on chloramphenicol ophthalmic solution 0.5% q.i.d. without improvement. This was stopped when the culture was reported to be negative.

A non tender one cm preauricular node became evident on the fourth day of illness. The left lid became more edematous, ptotic, and ecchymotic (Fig. 2). Subconjunctival hemor-

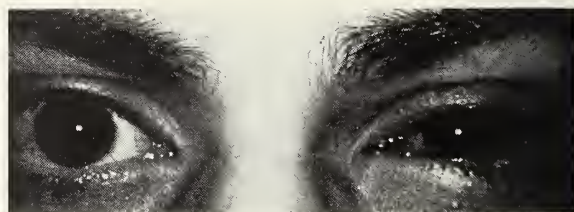


Figure 2. Case 1. On day 4 of the illness the left lid became ecchymotic in addition to more ptotic and edematous. The left conjunctiva was more injected, while the right conjunctiva was only minimally involved.

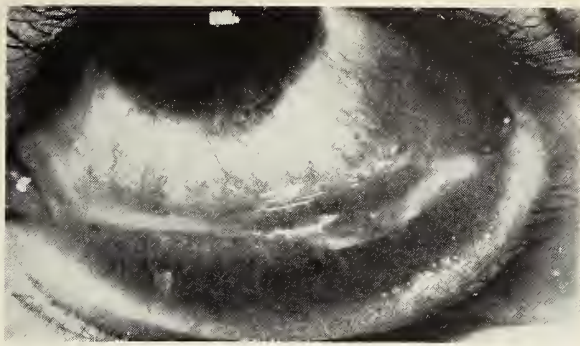


Figure 3. Case 1. On day 4 of the infection, a pseudomembrane was evident along with edema of the caruncle and semilunar fold. Perilimbal subconjunctival hemorrhages were present.

rhages, edema of the plica and caruncle, and a pseudomembrane were evident (Fig. 3). The initial pain, which had subsided, then returned as a chronic low grade discomfort interrupted by short episodes of excruciating foreign body sensations. Dexamethasone drops 0.1% and ointment 0.05% were instituted. This alleviated the general discomfort, but not the severe bouts of pain.

A punctate keratitis with subsequent subepithelial infiltrates developed starting on day 8 of the infection. The vision in the left eye was reduced to 20/40. The right eye, which became involved to a much lesser degree beginning on day 5, was blurred to 20/30.

Resolution of the conjunctivitis required three weeks. The medication was tapered as the signs and symptoms regressed. The vision returned to 20/15 in each eye. The subepithelial infiltrates at the limbus remained, while those located centrally disappeared.

A cytopathic effect was seen in the human embryonic kidney cell culture within twenty-four hours for both the conjunctival and throat cultures. By their appearance in tissue cultures, complement fixation, and the IUDR and chloroform tests, the virus was identified as an adenovirus. Typing revealed it to be AV 19.

Acute and convalescent sera demonstrated a significant four fold increase in the titer of antibodies.

Case 2. The 2½-year-old daughter of Case 1 manifested the same signs and symptoms in the same sequence starting on the seventh day of the latter's infection (Fig. 4). The vision remained normal during the course of the disease. The patient did not complain as much about discomfort, and topical dexamethasone was administered sparingly. A pre-auricular lymph node was



Figure 4. Cases 1 and 2. There was more marked involvement of the left eye of both patients on day 7 of the former's infection and day 1 of the latter's.

palpable. Grossly no corneal staining or infiltrates were evident. The infection resolved in three weeks without any obvious deficit.

Using the same methods as in Case 1, a culture from the left conjunctiva resulted in the growth of adenovirus Type 19.

Discussion

Although epidemic keratoconjunctivitis was described in Europe in the nineteenth century,⁵ it became recognized as a significant problem in this country only after a Hawaiian epidemic in 1941.⁶ Hogan and Crawford⁷ followed the spread of this outbreak to the shipyards of the Pacific United States. The etiology of EKC was determined by Jawetz⁸ to be adenovirus Type 8. This was supported by Mitsui⁹ who instilled the virus into the eyes of non-immune volunteers, who then developed the clinical picture of EKC. Less frequently, Types 2, 3, 4, 7, 9, 10, 11, 14, 15, 16 and 17 have been found to cause EKC.¹⁰⁻¹⁵

Although first isolated in 1955,¹⁵ AV 19 has only recently been reported^{2,16} as an etiologic agent in cases of EKC in the Eastern United States and Canada. In many cases,² AV 8 was also present. In other cases,¹⁶ AV 19 was the sole cause of the epidemic.

The Cases reported in this paper demonstrated the typical picture of EKC with the exception of subepithelial infiltrates in Case 2. Both presented with pseudomembranous conjunctivitis associated with preauricular adenopathy, lid edema and ecchymosis, chemosis, plical edema, and subconjunctival hemorrhages. Case 1 had documented subepithelial infiltrates. Possible explanations for the lack of subepithelial infiltrates in Case 2 include inadequate examination (it was not possible to perform a slit lamp examination of the child because of age), or Mitsui's observation¹⁷

that the keratitis, at least with AV 8, occurs less frequently in children.

Although the initial source of the infection was not found, Case 1 had had extensive recent exposure to patients with conjunctivitis. Case 2 became infected, despite precautions, probably by fomite transmission, as is usually the case.

Treatment and its results were not discussed in previous reports of EKC due to AV 19.^{2,16} With regard to EKC due to AV 8, topical steroids have been reported¹⁹ to bring both symptomatic relief and suppression of subepithelial infiltrates. In Case 1, similar symptomatic relief was obtained, but neither suppression nor resolution of corneal infiltrates during steroid therapy was observed.

Summary

A father and his 2½-year-old daughter had

severe keratoconjunctivitis with signs and symptoms suggestive of epidemic keratoconjunctivitis. Viral cultures and serologic tests, indicated that adenovirus Type 19 was the etiologic agent. Adenovirus Type 19 has not previously been reported in the ophthalmic literature as the cause of this condition in the Mid Western United States. ◀

Acknowledgement

The authors wish to express their appreciation to Byron Berlin, M.D., Director Clinical Virology Laboratory, Northwestern University Memorial Hospital, for performing the various viral studies and for his assistance in the preparation of the manuscript.

References

A list of references for "Adenovirus Type 19 Epidemic Keratoconjunctivitis" may be obtained by writing *IMJ*, 55 E. Monroe, Suite 3510, Chicago 60603.

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EKG

(Continued from page 166)

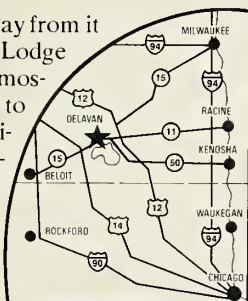
Answers: 1. D. 2. B,C,D

The ECG is normal with sinus arrhythmia. The patient was not a typical case of mitral stenosis because no diastolic rumble was heard and the opening snap seemed to vary in timing. Bacterial endocarditis was ruled out with many negative blood cultures. An echocardiogram strongly suggested a left atrial tumor. This was also in keeping with the sudden onset of symptoms in our patient. Symptoms that persist despite good treatment are clues especially if the symptoms are positional. Constitutional symptoms such as fever, leukocytosis, increased sedimentation rates, and weight loss are often seen.

Most cardiac tumors are myxomas and as many as 75 percent occur in the left atrium. They frequently simulate mitral valve disease. Cardiac catheterization and levoangiography were performed. A pedunculated tumor mass was demonstrated which moved back and forth across the mitral valve. It was surgically removed, and the patient needed no further medication. An interesting review of the long term follow-up in these patients has been published by Croxson *et. al.* (*British Heart Journal* 34:1018-1923, 1973).

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BLUE SHIELD REPORT



FOR *Illinois Physicians*

Blue Cross—Blue Shield Names S. Martin Hickman President



S. Martin Hickman

Mr. S. Martin Hickman has been named president and chief executive officer of Illinois Blue Cross and Blue Shield. He was elected at a meeting of the Board of Directors on February 23 and will assume his new position on June 1, 1976.

Mr. Hickman succeeds Mr. Robert M. Redinger who will retire May 31 after serving nine years as president and chief executive officer of the Illinois Blue Cross-Blue Shield Plan.

During Mr. Redinger's term of office the Plan had its greatest period of growth, becoming a \$1 billion corporation with 3¼ million members, making it the largest provider of health care coverage in Illinois.




Mr. Hickman has been serving as executive vice president of the Plan since 1973. Previously, he was senior vice president in charge of finance and planning. He joined Blue Cross and Blue Shield in 1955 as actuary and subsequently served as assistant vice president of the financial department and vice president of finance before his election as a senior vice president in 1968.

New Identification Cards for Western Electric Employees

Beginning March 1, active employees of Western Electric and its subsidiaries will be using a different style Blue Cross-Blue Shield identification card. The new identification card will not change the way in which you have previously submitted Physician Service Reports. *Even though the appearance of the card is different, continue to file all Physician Service Reports as you have in the past with Illinois Blue Shield, 233 North Michigan Avenue, Chicago, Illinois 60601.* Claims will continue to be paid for covered services by Illinois Blue Shield. Do not send Service Reports to the address on the identification card. It will only delay payment.

It is important to make certain that the identification code and number are on all Service Reports. They will always be "WER 303" followed by the employees Social Security number. *If the "WER 303" is omitted, the claim cannot be processed.*

A specimen card is reproduced above. It has been used by Western Electric retirees for several years, but effective March 1, will be used by all active employees.

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DOE JOHN			
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Please remember, when submitting Physician Service Reports March 1 and after to include "WER 303" followed by the employees Social Security number.

We ask your assistance in helping us be of better service to you and to our members. Thank you.

Vitamin B-12 Injections

Part B Medicare coverage guidelines and instructions specify the medical conditions and the reasonable dosage schedule accepted for the administration of Vitamin B-12 injections.

The medical conditions, as stated in the Part B Intermediary Manual, include:

(1) Certain Anemias: Pernicious anemia; megaloblastic anemias, macrocytic anemias, fish tapeworm anemia;

(2) Certain Gastrointestinal Disorders: Gastrectomy; malabsorption syndromes such as sprue and idiopathic steatorrhea; surgical and mechanical disorders such as resection of the small intestine, strictures, anastomoses and blind loop syndrome;

(3) Certain Neuropathies: Posterolateral sclerosis; other neuropathies associated with pernicious anemia; during the acute phase or acute exacerbation of a neuropathy due to malnutrition and alcoholism.

When the conditions shown above are not present, Medicare cannot make payment for B-12 injections. For that matter any type of injection given simply for the general good and welfare of a patient, and not as an accepted therapy for a particular illness, is not covered under Medicare.

The manual instructions are also quite specific on the reasonable dosage schedule for Vitamin B-12 injections:

Instructions state scientific studies have shown that in an individual with documented pernicious anemia caused by Vitamin B-12 deficiency, an intramuscular or subcutaneous injection of Vitamin B-12 at a dose of from 100 to 1,000 micrograms and a frequency of not more than once monthly is the accepted, necessary and reasonable dosage schedule for maintenance treatment. More frequent injections would be appropriate in the initial or acute phase of the disease until it has been determined through laboratory tests that the patient can be sustained on a maintenance dosage.

(In the initial stage or treatment of the acute problem it is commonly accepted that injections at intervals of three times a week, or even daily for a short period of time, are indicated during the first few weeks. In most cases thereafter for maintenance purposes it need not be administered more often than every four weeks or once a month).

Because of the specific instructions from the Social Security Administration, Vitamin B-12 injections given more often than once a month or at four week intervals cannot be approved for payment, unless a specific medical reason is provided which establishes that the higher frequency is medically

reasonable and necessary. A statement alone from the attending physician that in his opinion a greater frequency is necessary is not considered sufficient by Medicare without explanation of the medical reason (e.g. acute phase).

Acupuncture Not Reimbursable Under Medicare

Until pending scientific assessment of the technique has been completed and its efficacy established, no Medicare reimbursement is provided for acupuncture as an anesthetic, analgesic or for any other therapeutic purpose.

Even in those areas of the world where it has been widely used its mechanism is not known. Three units of the National Institutes of Health, the National Institute of General Medical Sciences, National Institute of Neurological Diseases and Stroke and the Fogarty International Center have been designated to assess its use for surgical anesthesia and relief of chronic pain.

ASSIGNMENT OF BENEFITS

An assignment is an agreement between a physician and patient to have Medicare make payment of benefits directly to the physician. The physician agrees to accept the reasonable or allowed charge as determined by Part B Medicare as payment in full.

The Part B carrier pays the physician 80% of the reasonable charge over and above the \$60 deductible. The patient is responsible for paying the physician only for the applicable deductible, the coinsurance and for noncovered services.

If the patient and his physician agree to assignment of benefits, the patient should sign Item 6 of the SSA-1490 Request for Medicare Payment form, and the physician should complete Part II and check the box in Item 12 to show acceptance of assignment. Itemized information relating to medical services can be furnished on enclosed bills or by completing Item 7 of the form by the physician.

Failure to abide by this agreement is a violation of the assignment agreement. When a patient protests to his Social Security office or the Part B Medicare carrier that he was billed in excess of the reasonable charge and had paid the bill, the physician would be asked by the carrier to refund payment. Failure to do so will make it necessary for the carrier to recover the amount against future payments payable to the doctor. If violations continue, the matter will be referred to the Social Security Administration for action, and the assignment privilege may be withdrawn entirely.



Illinois Medical Journal

MARCH, 1976

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The *Illinois Medical Journal* is published by the Illinois State Medical Society as an educational and professional informational magazine and distributed as a benefit of membership in the Illinois State Medical Society. Its intent is to keep members current in medical knowledge and is a part of a continuing medical education program. Socioeconomic matters, affecting as they do a changing pattern in the proper delivery of medical care, are considered an inherent element in medical education.

Editorials



Medical vs. Surgical Coronary Care

Controlled experimental studies sometimes bring up more questions than answers. We recently found an example in the *New England Journal of Medicine*. It included an article by Seldon et al.¹ on the results of a controlled study of the medical versus the surgical therapy of acute coronary insufficiency. It is generally agreed that aortocoronary bypass grafts can relieve severe angina in most patients. But is the risk of the operation worth the relief of pain in both short and long term survival? The editor thought the results timely enough to include an editorial.

Surgery of this type is considered urgent in patients with unstable angina due to the serious and unpredictable nature of this condition. Forty patients with this type of high risk angina were hospitalized and randomly allotted to either the medical therapy or urgent surgical coronary bypass group. The 19 medical patients formed a control group or a placebo and remained in the coronary care unit for a minimum of two days. They received propranolol and nitroglycerine, oxygen, digitalis, and diuretic as needed. The 21 surgical patients were also admitted to the coronary care units until coronary bypass was performed (up to 40 hours).

At the end of four months there were no deaths in the medical group. Two developed myocardial infarctions during this period. Both were asymptomatic and only detected by changes in the electrocardiogram.

There was one post operative death among the 21 surgical patients. It was due to a non-cardiac complication. In addition there were three intra-operational myocardial infarctions. But once through the operative period, the surgical patients had a benign clinical course for the remainder of the four months. Angiograms showed that 82% of the grafts remained patent. Unfortunately the report only covers four months.

In essence those who were treated medically did better for this period of time but they still had their coronary pathology. The surgical group took greater risks at the beginning but once the operation was over they had a better coronary circulation. The medical or control group did better but will they live longer than those who had the bypass? Both groups were asymptomatic at four months.

Stephen G. Pauker wisely entitled the accompanying editorial² "Coronary Surgery: When, Where, and for Whom?" What do you tell the patient with unstable angina so that he can make an informed decision about a coronary operation?

T. R. Van Dellen, M.D.
Editor

References

1. Seldon, R. et al, "Randomized Medical versus Surgical Therapy for Acute Coronary Insufficiency." *New Eng. J. Med.* 293:1329, 1975.
2. Pauker, S. G., "Coronary Surgery: When, Where and for Whom?" Editorial, *New Eng. J. Med.* 293:1369, 1975.

Medical Audit—Bugaboo or Blessing?

BY DEAN R. BORDEAUX, M.D., PRESIDENT, ICCME, 1974-75/PEORIA

Why audit? Is audit really just a device for PSRO and Peer Review? Is audit a process by which "big brother" will be looking over the shoulders of the medical practitioner in an effort to gain more and more federal control of the health care industry? Is medical audit something that should be met with resistance from the medical profession? Can medical audit really be any benefit to the health care practitioner? Is medical audit just a tool of the planners of National Health Insurance? Is medical audit actually just a bugaboo?

Medical audit can serve for the benefit of the health care practitioner as well as the patients that he/she serves. If medical education is truly a continuum of education from undergraduate, to graduate, to continuing education study, then important to that process for the practicing health care practitioner is the identification of personal learning needs. One good process by which these needs may be identified is by means of *medical audit*. Dr. Clement R. Brown, Jr., with his "Bi-Cycle Concept" * has shown how medical audit for a group of practicing health professionals at one hospital identified the needs of that group. After identification of these needs, specific educational programs were designed to meet these needs. As a result, subsequent medical audit showed that the ultimate end was the improvement of patient care. Though this concept was applied to a group at hospital staff level, the same concepts can operate at the personal physician level as well. By means of medical audit the practicing health professional can identify his/her educational needs for continuing education. After these needs have been identified, specific educational programs pin-

pointed to these needs may be designed.

To this end the Illinois Council on Continuing Medical Education has designed helps for the health care practitioners of the State of Illinois: 1) *Your Personal Learning Plan* is a manuscript designed to help the individual practitioner identify his/her own needs; 2) a Visiting Professor Program is being developed to provide individuals or groups of health practitioners with expertise in specific fields in their own environment; 3) fellowships for continuing medical education (mini-residencies) will allow the health practitioner to spend time in educational endeavor, again pinpointed to his/her educational needs.

Medical audit need not be a bugaboo. It can work to the advantage of the practicing health care professional in identifying his/her needs. Plans for Foundations for Medical Care, PSRO's, HMO's, etc., need to incorporate means for processing the data they accumulate so this data may be available for medical audit to pinpoint educational needs for the group of practicing health care professionals involved. Then educational programs can be developed for these health care professionals, pinpointed to the needs identified. Such continued learning, specifically designed to the needs of the health care professional or groups of health care professionals, may be a means of improving the health care delivery by that (those) professional(s) to the benefit of the patients that he/she/they serve. Medical audit can be a blessing for personal, need specific education. It need not be a bugaboo!

*Brown and Uhl, "Mandatory Continuing Education," JAMA, Vol. 213, No. 10 September 7, 1970, 1600-68.

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Indications: Treatment and prevention of potassium deficiency occurring especially during thiazide diuretic or corticosteroid therapy, digitalis intoxication, low dietary intake of potassium, or as a result of excessive vomiting and diarrhea and for correction of associated hypochloremic alkalosis.

Contraindications: Impaired renal function, untreated Addison's Dis-

ease, dehydration, heat cramps and hyperkalemia.

Warnings: Do not use excessively.

Precautions: Administer with caution and adjust to the requirements of the individual patient. The patient should be checked frequently and periodic ECG and/or plasma potassium levels made. Use with caution in patients with cardiac disease. In hypokalemic states, attention should be directed toward the correction of the frequently associated hypochloremic alkalosis. **Patients should be cautioned to adhere to dilution instructions.**

Adverse Reactions: Potassium intoxication indicated by listlessness, mental confusion, paresthesia of the extremities, weakness of the legs,

flaccid paralysis, fall in blood pressure, cardiac depression, arrhythmias, arrest and heartblock. Vomiting, nausea, abdominal discomfort and diarrhea may occur.

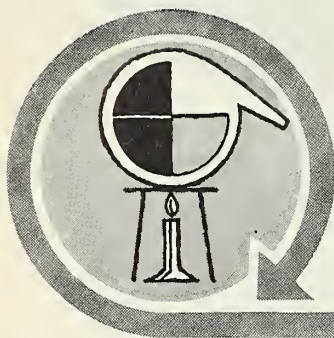
Dosage and Administration:

One 15 ml. tablespoonful (20 meq. of potassium chloride) *diluted* in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician.

Overdosage: In case of excessive use resulting in hyperkalemia or potassium intoxication, discontinue use of potassium chloride administration or take other steps to lower serum levels if indicated.

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new pharmaceutical specialties

By PAUL DEHAEN

For detailed information regarding indications, dosage, contraindications and adverse reactions, refer to the manufacturer's package insert or brochure.

New Single Drugs—Drugs not previously known, including new salts.

Duplicate Single Drugs—Drugs marketed by more than one manufacturer.

Combination Products—Drugs consisting of two or more active ingredients.

New Dosage Forms—Of a previously introduced product.

The following new drugs have been marketed:

NEW SINGLE DRUGS

DITROPAN Antispasmodic Rx
 Manufacturer: Marion Laboratories, Inc.
 Nonproprietary Name: Oxybutynin Chloride
 Indications: Uninhibited neurogenic and reflex neurogenic bladder.
 Contraindications: Glaucoma, obstructive conditions of the gastrointestinal tract.
 Dosage: Adults, 5 mg. two or three times daily. Children over 5 years of age, one tablet twice daily.
 Supplied: Tablets, 5 mg.

DUPLICATE SINGLE DRUGS

DYCILL Penicillin Antibiotic Rx
 Manufacturer: Beecham Laboratories
 Nonproprietary Name: Dicloxacillin Sodium
 Indications: Infections due to penicillinase producing staphylococci.
 Contraindications: History of allergic reactions to penicillins or cephalosporins.
 Dosage: Adults and children above 88 lbs: 250 mg or more every 6 hours.
 Supplied: Capsules, 250 and 500 mg.

ESTRACE Estrogen Rx
 Manufacturer: Mead Johnson Laboratories
 Nonproprietary Name: Estradiol
 Indications: Relief of endogenous estrogen deficiency and associated menopausal symptoms.
 Contraindications: Refer to package insert.

Dosage: One or two mg. daily, adjust to response of the patient.
 Supplied: Tablets, 1 and 2 mg. (micronized)

ENDEP Psychostimulant Rx
 Manufacturer: Roche Laboratories
 Nonproprietary Name: Amitriptyline HCl
 Indications: Relief of symptoms of depression, especially endogenous depressions.
 Contraindications: Do not give concomitantly with monoamine oxidase inhibitors; not recommended for use during the acute recovery phase following myocardial infarction.
 See package insert.

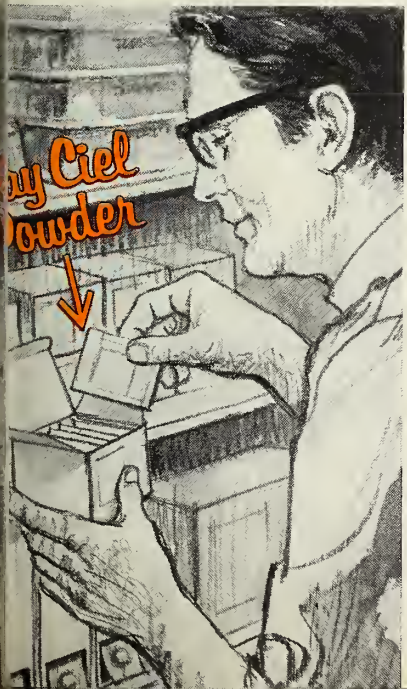
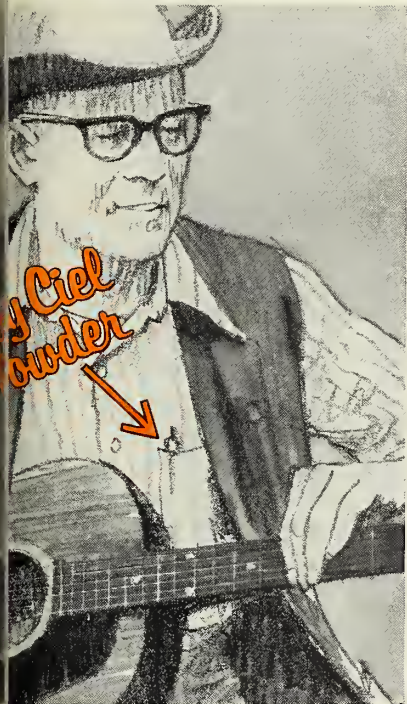
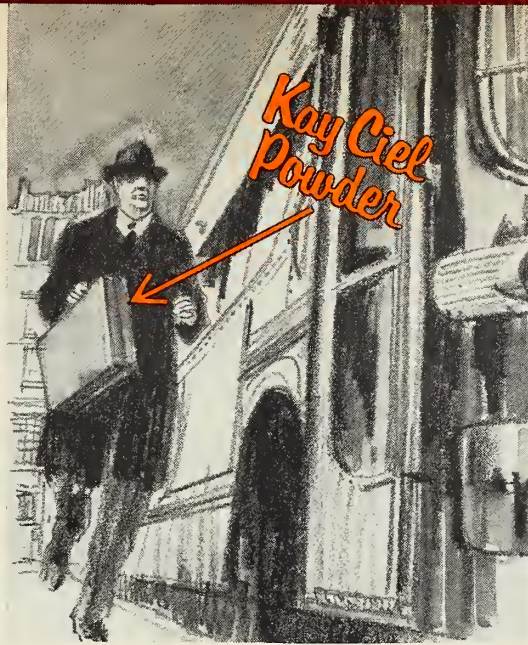
Warnings and Precautions:
 Supplied: Tablets, 10, 25, 50 and 75 mg.

GAMMENE Antipruritic o.t.c.
 Manufacturer: Barnes Hind Pharmaceuticals, Inc.
 Nonproprietary Name: Benzene Hexachloride, Gamma
 Indications: Scabies and pediculosis.
 Dosage: Apply as needed.
 Supplied: Lotion and Shampoo, 1%.

UNIGESTIC Nonnarcotic Analgesic Rx
 Manufacturer: The Upjohn Company
 Composition: Propoxyphene HCl 65 mg.
 Aspirin 300 mg.
 Indications: Mild and moderate pain.
 Contradication: Hypersensitivity to the drugs.
 Dosage: One tablet every four hours.
 Supplied: Tablets

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ASCRIPTIN A/D Non-narcotic Analgesic and antiinflammatory agent o.t.c.
 Manufacturer: William H. Rorer, Inc.
 Composition: Aspirin 325 mg.
 Magnesium-aluminum hydroxide 300 mg.
 Indications: Rheumatoid and osteoarthritis and other arthritic conditions.
 Precaution: Do not prescribe to patients receiving tetracycline.
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Clinics for Crippled Children Listed for April

Twenty-nine clinics for Illinois' physically handicapped children have been scheduled for April by the University of Illinois, Division of Services for Crippled Children. The Division will count twenty-one general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical, social and nursing services. There will be seven special clinics for children with cardiac conditions, and one for children with cerebral palsy. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- April 1 Sterling, Community General Hospital
- April 1 Effingham, St. Anthony Memorial Hospital
- April 1 Litchfield, St. Francis Hospital
- April 1 Lake County Cardiac, Victory Memorial Hospital
- April 6 Metropolis, Massac Memorial Hospital
- April 7 Cairo, Public Health Department
- April 7 Hinsdale, Hinsdale Sanitarium
- April 8 Springfield, St. John's Hospital
- April 8 Kankakee, St. Mary's Hospital
- April 9 Chicago Heights Cardiac, St. James Hospital
- April 9 Division Cardiac, U. of Ill. Hospital, Center for Handicapped Children
- April 12 Peoria Cardiac, St. Francis Children's Hospital
- April 13 Peoria, St. Francis Children's Hospital
- April 14 Champaign-Urbana, McKinley Hospital
- April 15 Elmhurst Cardiac, Memorial Hospital of DuPage County
- April 15 Bloomington, Mennonite Hospital
- April 20 Rock Island, Moline Public Hospital
- April 20 Quincy, St. Mary's Hospital
- April 20 East St. Louis, Christian Welfare Hospital
- April 21 Centralia, St. Mary's Hospital
- April 21 Chicago Heights, St. James Hospital
- April 22 Rockford, Rockford Memorial Hospital
- April 23 Chicago Heights Cardiac, St. James Hospital
- April 23 Evanston, St. Francis Hospital
- April 26 Peoria Cardiac, St. Francis Children's Hospital
- April 27 Peoria, St. Francis Children's Hospital
- April 27 Belleville, St. Elizabeth's Hospital
- April 28 Springfield Pediatric-Neurology, Diocesan Center
- April 28 Aurora, St. Joseph Mercy Hospital

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization and after-care for children with crippling conditions or who are suffering from conditions that may lead to crippling. In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse association, local social and welfare agencies, local chapters of the National Foundation and other interested groups. In all cases the work of the Division is intended to extend and supplement, not supplant activities of other agencies, either public or private, state or local, carried on behalf of crippled children.

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Usage in Ambulatory Patients—Propoxyphene may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks, such as driving a car or operating machinery. The patient should be cautioned accordingly.

Usage in Pregnancy—Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, propoxyphene should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

Usage in Children—Propoxyphene is not recommended for use in children, because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric age group.

Precautions: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The central-nervous-system depressant effect of propoxyphene may be additive with that of other C.N.S. depressants.

Adverse Reactions: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, lightheadedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances.

The chronic ingestion of propoxyphene in doses exceeding 800 mg. per day has caused toxic psychoses and convulsions.

[011375]

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Contraindication: Hypersensitivity to propoxyphene, aspirin, phenacetin, or caffeine.

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Usage in Children—Propoxyphene is not recommended for use in children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric age group.

Salicylates should be used with extreme caution in the presence of peptic ulcer or coagulation abnormalities.

Precautions: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

The central-nervous-system depressant effect of propoxyphene may be additive with that of other C.N.S. depressants.

Phenacetin has been reported to damage the kidneys when taken in large amounts for a long time.

Salicylates may enhance the effect of anticoagulants and inhibit the uricosuric effect of uricosuric agents.

Adverse Reactions: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, lightheadedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances.

The chronic ingestion of propoxyphene in doses exceeding 800 mg. per day has caused toxic psychoses and convulsions.

[011375]



Additional information available
to the profession on request.

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An Invitation to Illinois State Medical Society Student Members:

ISMS Annual Student Membership Meeting

12:00 noon — April 25, 1976

Palmer House, Chicago

Perhaps you are wondering why and how you should participate in the upcoming Illinois State Medical Society Annual Meeting.

The answer to the "*why*" really comes from those of us that feel it is a great benefit to participate in the affairs of organized medicine. In medical school, formal exposure to the political and social aspects of medicine is actually nonexistent. However, these factors are crucial determinants of how medicine is practiced and taught today, and more important, how *we* will practice and teach in the future. Crucial decisions regarding National Health Insurance, Professional Standards Review Organizations, the Malpractice Crisis, and the geographic maldistribution of physicians are being made today. Through the medical societies, physicians can have an effective voice in the decision making process—and so can students.

How can students participate in their state medical society? Our Illinois State Medical Society has made available the opportunity for significant participation for students. There are student representatives on almost all committees and councils. However, the students have their most important impact through their "*own*" committee—the Advisory Committee to Medical Students. This committee is composed of a student representative from each Illinois medical school and several practicing physicians. In the last few years, this committee has been very active in its task of coordinating student participation and

benefits. It has helped to compile a compendium of senior electives at Illinois Medical Schools, established a student-practitioner visitation program, and sponsored the Illinois MECO (Medical Education and Community Orientation) program of summer preceptorships for underclass students in community hospitals.

Enough of the "*whys*"—Now for the "*Hows*"

This April, at the ISMS annual convention, the Second Annual Student Membership Meeting will be held. Its activities will parallel those of the Student Business Session at the AMA Convention; namely, to take positions on the resolutions introduced to the House of Delegates (the policy making body of the ISMS) and to formulate student resolutions to the House. In addition, we will elect a new student delegate and alternate for the coming year. All student members of ISMS are voting members at the meeting. However, *all* medical students are invited to attend.

Again mark your busy calendars for *April 25*. Finally, in addition to all of the above, participation in the medical society is fun. It is chance to meet and discuss medical as well as non-medical issues with fellow students from different schools. We who have participated in the past, welcome all of you to come and see how enjoyable it can be. Until we meet in March, be well and don't let the winter bring you down.

Ira J. Isaacson

Chicago Medical School, Ad Hoc Student Board

Obituaries

***Buck, Robert**, Texas, died December 22 at the age of 99. Dr. Buck graduated from University of Illinois in 1907.

***Christian, Loren**, Arizona, died October 30 at the age of 75. Dr. Christian graduated from Northwestern University in 1929.

***Delson, Betty**, Chicago, died December 22 at the age of 77. She graduated from University of Illinois in 1930. Dr. Delson was instrumental in World War II in bringing many Jewish families from Europe to the United States.

***Fields, Charles**, Chicago, died January 25 at the age of 70. Dr. Fields graduated from University of Illinois in 1931.

***French, Thomas**, Colorado, died January 27 at the age of 84. Dr. French graduated from Cornell University in 1920. Dr. French was director of the Chicago Institute for Psychoanalysis.

***Greenhill, J. P.**, Chicago, died December 22 at the age of 80. Dr. Greenhill graduated from Johns Hopkins University in 1919.

***Heller, Henry**, Oak Park, died February 1 at the age

of 84. Dr. Heller graduated from University of Illinois in 1920.

***Lull, George**, Chicago, died February 7 at the age of 88. Dr. Lull graduated from Philadelphia University in 1909. He was a past president of ISMS.

***Miller, Herbert**, Joliet, died February 7 at the age of 63. Dr. Miller graduated from University of Illinois in 1939. He was also a former director of the Will County Health Department.

***Peterson, Harry**, Oak Park, died January 28 at the age of 85. Dr. Peterson graduated from University of Illinois in 1916.

***Silberberg, Ernst**, Chicago, died January 4 at the age of 74. Dr. Silberberg graduated from Breslau, Germany in 1926.

***Staras, Henry**, Peoria, died January 5 at the age of 56. He graduated from Tuebingen, Germany in 1950. Dr. Staras was former superintendent of Peoria State Hospital. He was also medical director at Galesburg Mental Health Center.

**Indicates ISMS member*

***Indicates ISMS member and member of the Fifty Year Club*

Former ISMS President

Dr. George F. Lull Dies at 88



Dr. George Fairless Lull, 88, of 2440 N. Lakeview, Chicago, died February 7, following a long illness. A surgeon and medical leader, Dr. Lull had served as Deputy Surgeon General of the U.S. Army, President of the Illinois State Medical Society, Executive Secretary-General Manager of the American Medical Association, Interim Executive Administrator of ISMS, and Executive Vice-President of the Chicago Medical Society.

Dr. Lull's distinguished medical career included service as a commanding officer, U.S. Army Medical Corps, during both World War I and World War II. He attained the rank of major general and in 1943 was named Deputy Surgeon General, a post he held until 1946 when he joined the AMA's executive staff.

In 1960, Dr. Lull served as ISMS Secretary-

Treasurer and began a five year term as Medical Director of the Cook County Department of Public Aid. In 1962, he was elected ISMS President. From 1966-68, he served as interim ISMS Executive Administrator, and from 1970 to 1973 he served as Executive Vice-President of Chicago Medical Society.

A native of Scranton, Pa., Dr. Lull received his M.D. degree in 1909 from Jefferson Medical College, Philadelphia. He also earned a masters degree in public health from Harvard University in 1921, and a doctor of public health degree from the University of Pennsylvania in 1922.

In 1912 Dr. Lull joined the U.S. Army Medical Corps, advancing as a commanding officer to the rank of Major General. During his military career he served throughout the world. Among the many awards and citations received were the Purple Heart, Distinguished Service Medal, the French Legion of Honor, and the Order Carlos Finlay (Cuba).

A fellow of the American College of Chest Physicians, Dr. Lull also was a member of the American College of Surgeons, American College of Physicians, International College of Surgeons (honorary), Association of Military Surgeons, American Hospital Association (honorary), American Public Health Association and American Public Welfare Association.

He also belonged to Alpha Omega Alpha, Phi Rho Sigma, and the Army and Navy Club in Washington, D.C. He was honored with several degrees including the LL.D. and D.Sc. In addition, Dr. Lull was a Shriner and worked with the VFW and the American Legion.

Dr. Lull was preceded in death by his wife Margaret, née Orr, in 1912, his second wife Janet, née Love, in 1949, and by a son Charles Orr Lull. He is survived by his widow, Mildred, née Beckman, and a son, Dr. George F. Lull, Jr., of Arizona.

An all around grand guy, many will remember his affable humor, his keen wit, and his sparkling eyes. Dr. Lull was a man concerned with people and who gave much of himself. Graveside ceremonies and interment were at Arlington National Cemetery, Arlington, Va., February 11.

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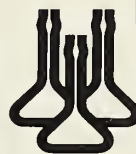
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medical legal review

Diagnostic Patterns in Disability Illinois and the Nation

BY HARRY E. GRANT, M.D., CHIEF MEDICAL CONSULTANT, ILLINOIS STATE AGENCY

This short statistical analysis of data compiled by the Office of Research and Statistics, Social Security Administration, shows the extent and nature of Illinois' participation in the social security disability insurance program. It compares some of the State's data with national averages, and includes a comparison of worker disability allowances by diagnostic groups for Illinois and the U.S. overall.

Under the provisions of the social security disability program, the nation's largest disability plan, a worker under 65 can receive monthly benefits if he or she becomes unable to work due to a mental or physical impairment that has lasted, or is expected to last, at least 12 months or is expected to result in death.

Almost 80 million workers can count on monthly cash benefits in the event of such severe and extended disability. In addition, the dependents of these workers also are eligible for monthly benefits. Nearly 2.4 million workers and 1.8 million dependents are now receiving disability benefits at the rate of more than \$7.5 billion a year.

Currently, 95,000 disabled workers in Illinois

are receiving \$22,200,000 a month in benefits. In addition, 14,000 wives or husbands of disabled workers and 47,000 children of disabled workers in Illinois are receiving benefits at a monthly rate of \$1,001,000 and \$3,300,000, respectively.

The latest year for which tabulated data is available showing disabled worker diagnostic patterns by state is 1972. Disabled workers in Illinois who began receiving benefits in that year constituted 21,060 of the 455,398 new beneficiaries nationwide.

Table I compares the frequency of diagnostic groups in Illinois with the U.S. overall. It shows that diseases of the circulatory system comprised the largest diagnostic group in the country in

Table I. Social Security Worker Disability Allowances 1972—Diagnostic Groups

Diagnostic Group	United States		Illinois	
Diseases of the circulatory system	146,684	32.2	7,070	33.6
Diseases of the musculoskeletal system	75,923	16.7	2,873	13.6
Mental, psychoneurotic, and personality disorders	45,253	9.9	1,751	8.3
Neoplasms	43,667	9.6	2,211	10.5
Accidents, poisonings, and violence	31,728	7.0	9,397	6.6
Diseases of the respiratory system	33,038	7.3	1,477	7.0
Diseases of the nervous system and sense organs	28,216	6.2	1,448	6.9
Endocrine system, metabolic, and nutritional diseases	17,352	3.8	1,039	4.9
Diseases of the digestive system	13,369	2.9	703	3.3
Infective and parasitic diseases	8,627	1.0	557	2.6
Other	11,541	2.5	534	2.5
TOTAL	455,398	100.0*	21,060	100.0

*Figures may not total 100% due to rounding.

(Continued on page 234)

Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005

Emergency—Hazardous Materials

The increasing possibility of incidents involving hazardous materials has brought forward many questions from medical practitioners as well as the general public about what to do when such a situation occurs.

For immediate assistance in emergencies involving hazardous materials contact: CHEMTREC, the Chemical Transportation Emergency Center, at **800-424-9300**. This is a 24 hour a day, toll free number maintained as a public service by the Manufacturing Chemists Association in Washington, D.C.

An emergency reported to CHEMTREC is received by the Communicator on duty, who records details in writing and by tape recorder. The Communicator then attempts to determine the essentials of the problem and provide the best available information on the toxic substances reported to be involved. He would then provide specific initial indications of the hazards, precautions, and directions regarding spills, fire, or exposure in controlling the emergency. Additionally, the Communicator immediately notifies the materials' shipper of the incident. Responsibility for further guidance would then pass to the shipper.

The State of Illinois, through the Illinois Disaster Plan is also available for direct technical support and assistance in instances involving radioactive materials or radiation producing machines. By calling **217-782-7860**, one can reach the Illinois Civil Defense Agency Duty Officer in Springfield, who will connect you with the Illinois Radiological Assistance Team. A team member will then advise precautionary measures to be taken before professional personnel arrive. A pamphlet entitled "Care of Radiation Accident Patients" is also available, published by the Division of Radiological Health, Consumer Health Protection, Illinois Department of Public Health.

Two other booklets have been prepared concerning hazardous materials:

1. "Emergency Services Guide for Selected Hazardous Materials," published by the U.S. Department of Transportation, Office of the Secretary, Office of Hazardous Materials, as a guide of actions to be taken to minimize the immediate hazard impact of spills encountered in the bulk transportation of certain hazardous substances.

2. "An Identification System for Occupationally Hazardous Materials," published by the U.S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health, recommends an identification system to allow rapid determination of the relative danger that may result from exposure to these materials.

For obvious reasons it is urged that hospital and civil defense personnel should write for copies of these publications at their earliest opportunity. They may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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(Continued from page 230)

1972. Diseases of the musculoskeletal system and mental disorders, including psychoneurotic and personality disorders, were the second and the third largest diagnostic groups, respectively. All states do not, however, follow this pattern.

Within these overall diagnostic groups, the most prevalent *primary diagnosis* in both Illinois and the nation in 1972 was chronic ischemic heart disease. Illinois recorded 3997 cases that year. The nation's second most common primary diagnosis, osteoarthritis, accounted for 1002 cases in Illinois. Following these, in order of decreasing national prevalence, was displacement of intervertebral disc, with Illinois reporting 335 cases followed by schizophrenia with 709 cases. There were 838 cases of emphysema in Illinois; 653 cases of diabetes mellitus; and rheumatoid arthritis and allied conditions accounted for 573 cases in Illinois that year. Acute cerebrovascular disease, listed eighth among the most prevalent primary diagnoses in 1972, recorded 604 cases in Illinois; malignant neoplasm of trachea and lung 464 cases; and other respiratory diseases ranked tenth with 280 cases.

Additional information about the social security disability program in Illinois can be obtained through the Illinois State Agency, Disability Determination Services, P. O. Box 3842, Springfield, Illinois, 62708. (Tel: 217-782-7160)



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The Perfect Out-Patient Operating Room

BY HUGH A. JOHNSON, M.D./ROCKFORD

At the close of any operation I have done using local anesthesia, I expect the patient to say, "I have enjoyed the operation." If not, I feel as though I have failed. Such a response is the result of infinite attention to a myriad of minute details, not the least of which is the environment in which the operation is performed. An operating room that looks beautifully complete to a surgeon can look horrifying to a patient. They have seen operating rooms on television and know the horrors that transpire there. If the patient is not to be upset, the operation should be done in an environment that doesn't look like an operating room.

Years ago I discovered what the acupuncture people have pointed out—that if a nerve is already conducting a painful sensation, it cannot transmit another. I have found that if a patient is told, "You'll feel a pinch," then pinched and the needle inserted, the patient feels the slightly painful pinch and not the pain of the needle stick. On the other hand, saying, "You'll feel a little needle stick," can produce opisthotonus. Expanding on this, I have found that if all five senses are occupied with pleasurable stimuli and the patient is properly sedated, there will be a sense of pleasant well-being, as long as no unpleasant stimulus is introduced.

The Patient's First Impression

When the well-sedated patient arrives outside the door of my operating room, I am there, with a relaxed smile on my unmasked face. Whether

man, woman or child, I stroke the patient's cheek with a warm hand (touch). All odors of iodine, Penthrane (those who have had ether think Penthrane odor is ether), etc. are masked by a lilac or similar deodorant spraying of the area. The patient is then wheeled into the disguised operating room on a cart with the back slightly elevated so they need not strain to look about. As the patient is wheeled in, the first sight he sees is an outdoor courtyard with a bird feeder and bird bath. (Fig. 1) This view is so unexpected that for a moment it distracts from the imminent operation. Looking into the daylight



Figure 1. The Visual stimulus to a patient on entering the operating room.



HUGH A. JOHNSON, M.D., is in the private practice of plastic and reconstructive surgery in the Rockford Memorial Medical Building at the Rockford Memorial Hospital. He also maintains an office at Northwoods Hospital, Phelps, Wisconsin. Dr. Johnson is on the active staff of both Rockford Memorial Hospital and Northwoods Hospital, and is a consultant to the Sumner Kach Burn Unit at Cook County Hospital, Chicago.

obscures the sterile tiled walls. The I.V. stand, suction apparatus, dirty linen hampers, cardiograph and diathermy are all out of sight against the wall opposite the window. Thus, taste, smell and sight are pleasantly occupied.

Inside the Operating Room

Hearing is the last sense to be engaged.¹ When one listens to good, soft, peaceful music, faithfully reproduced, one cannot help but relax. It is as reflex an action as salivation when one is hungry and presented with a sizzling steak. This cannot be unprogrammed music as on F.M. and equipment must be the best, otherwise only the

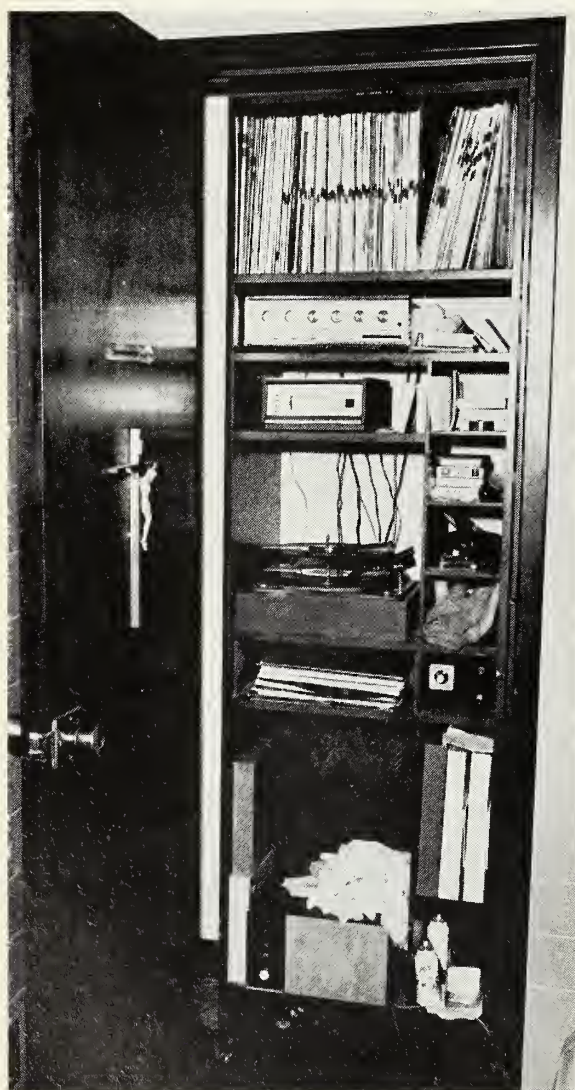


Figure 2. The patient's Auditory stimulus, good hi-fi equipment.



Figure 3. What the patient does not see of the operating room.

mood of the supermarket is achieved. Ideal recordings are rare—I have used "Clare de Lune" so often, I audibly groan when I hear it at a concert.

Aside from this ideal operating room (from the patient's point of view, not necessarily the surgeon's), there are many items of reassurance that must not be overlooked.² I have found that a patient can put up with almost anything if there is an end in sight. About a third of the way through any procedure I say, "We're about half done. Almost invariably the comment is, "Already? This isn't anything like I thought it would be." I answer, "We try to keep it tense like on television, but that is hard to do all day." Humor is an ideal distraction, but it must be used with extreme care after judging each patient's personality. There is no place for levity. Near the end of the operation I ask, "Are you hungry?" All have had a liquid lunch and it is surprising how much diversion the thought of food (vicarious taste) can produce. With anticipation of food and the return to his room where family or friends wait, the patient takes a last look out the window while moving to the cart. It is then I hopefully expect to hear, "Doctor, it's a funny thing to say, but I enjoyed the operation."

It is not always thus. One otherwise perfect scrub nurse simply cannot break herself of the habit of exclaiming "Whoops" after only the slightest aberration. Disaster! ◀

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1. Johnson, Hugh A., M.D. "An Ancient Tranquilizer Rediscovered." *JAMA*, Vol. 191, No. 1, Page 221. January, 1965.
2. Johnson, Hugh A., M.D. "Reinforcement of Local Anesthesia. The Art of Reassurance." *Plastic and Reconstructive Surgery*. Vol. 42, No. 6, Pages 557-561. December, 1968.

Next Steps for Mental Health Service in Illinois—An Assessment of Several Policy Instruments

Proceedings, Gathering of Friends of Mental Health in Illinois
April 4-5, 1975, Champaign

BY NORRIS HANSELL, M.D./CHAMPAIGN

A group of professionals interested in the continuing development of mental health services in Illinois came together April 4-5, 1975, in Champaign, to share ideas on how the legislative instruments which structure the service system may be suited for the situation they now face. Champaign County Mental Health Center acted as host and convenor. This report is a shortened version of the Proceedings of the Conference prepared for readers of the IMJ.¹ The occasion of The Gathering was stimulated by PA 78-1238 (September 1974)² which asks the Department of Mental Health and Developmental Disabilities to create and adopt a Five-Year Plan, by the circulation of some drafts of such a Plan (February, 1975),³ by the promulgation of the Ragan Report (November 1974),³ and by the occurrence of more than a decade of experience with the "708" legislation allowing local funding of public mental health services.

The Ragan Report (November 1974), "Mental Health and Developmental Disabilities in Illinois,"³ was prepared by J. F. Ragan at the request of the Governor and Department Director. A general summary of data and an overview description of mental health services in Illinois, the Ragan Report makes no recommendations but does highlight several findings:

1. Illinois is gradually evolving a system of local services but the State is the only unit of government with a clear, legal service mandate; and
2. The Department carries a heavy financial commitment to State facilities while enunciating a policy objective of creating a system of locally-operated services.

Aspects of the Iowa Plan⁴

Iowa has a strong tradition of well-developed county government, including services in the health and welfare sector. When Doctor Menninger visited in 1957 he advised the state program officers not to construct buildings but to invest funds for salaries. The counties have always paid most of the cost of the care for the

mentally ill. As the per diem costs of the state hospitals rose and as costs to the counties subsequently increased there was strong motivation for alternate methods of care. They were assisted in this development by the Iowa Mental Health Authority, which was charged with the task of developing a comprehensive mental health plan for the State. The private and voluntary sector is the backbone of the plan. At the present time the counties now purchase some tertiary, diagnostic and other special services from the State.

Consequently, the Iowa system is locally operated and regulated, highly differentiated, and closely enmeshed with the private and voluntary components via contracting at the county level.

Q: How did it work in metropolitan areas?

Norris: Slower to develop but along much the same path.

Q: How is service quality?

Norris: Variable. But all services are close to the users for their inspection and possible correction.

NORRIS HANSELL, M.D., is Professor in the Department of Psychiatry of Northwestern University Medical School, Chicago; Medical Director of the Champaign County Mental Health Center, Urbana; and Lecturer in Psychiatry, at Harvard Medical School, Boston. He is a member of several professional societies and has published numerous articles in the field of psychiatry.

¹A more complete Proceedings is available, Champaign County Mental Health Center, 1402 W. Park St., Urbana 61802. Doctor Hansell is Medical Director, Champaign County Mental Health Center.

²PA 78-1238 (September 7, 1974) "Act Amending Powers and Duties, Comprehensive Five-Year Plan."

³Available from the Director, Department of Mental Health and Developmental Disabilities, Springfield 62706.

⁴Background document: D. W. Hammersley and P. Vosburgh. Iowa's Shrinking Mental Hospital Population. Hospital and Community Psychiatry 22-32, (April) 1967.

Albert S. Norris, M.D., Professor and Chairman, Department of Psychiatry, Southern Illinois University School of Medicine, Springfield.

Aspects of the California Plan

A principal interest of the California Plan⁵ resides in the fact that, in 1968, after a decade of State grants and shared funding of optional local services, State governmental officers concluded little further local development might occur without establishment of a solid legal mandate for such local services.

It would be necessary to focus future public investment into *either* the central *or* the local system. The expectable costs in maintaining both systems appeared beyond reach. The legislature decided the local system would receive major public support and also would receive the principal service mandate. The Lanterman-Patris Short Act places the mandate and the State funds clearly on the local (county and municipal) system.

During the transition, the local system receives a per-capita share of State general-revenue funds but may purchase, with billings at actual cost, some services from State government.

The law allows considerable opportunity for innovation in method and auspices at the local level, so long as services "work." Contracting and subcontracting with all licensed providers are envisioned.

The commitment process was restructured to convert entrance-under-coercion, when necessary, into a clinical planning process wherein several options are reported or compared before the court.

Services for developmental disabilities remain more centralized; each such patient receives a voucher with which he may shop around for services, central or local, public, voluntary or private.

Q: How did the local communities react?

Tourlentes: Some of the events of institution-closing in California were not carefully coordinated with the local areas affected. In the short-run, unnecessary turbulence may have resulted. In particular, some local areas had not previously developed much in the way of services for heavy-

and-repeating users of service. In many areas the transition has been orderly and evolutionary.

Thomas T. Tourlentes, M.D., Executive Director, Comprehensive Community Mental Health Center of Rock Island and Mercer Counties, Rock Island.

Public Co-Insurance of Service

Premises. Service ought to be available to all levels of the mentally ill and developmentally disabled who need them. Government ought to be involved in this provision to the minimal extent necessary. Governmental auspices tend to complicate accessibility and remove incentives to provide quality, personalized services.

Proposal. Government should get out of the direct provision of service, as much as possible, and enter as a broad purchaser, insurer and co-insurer of local services. Government might support research and special projects, important in advancement of method. All licensed purveyors should be included in the system. State government would carry licensing and regulatory duties. Reception, assessment, and clinical planning would be locally-provided services and would constitute an insurable service. Periodic clinical reassessment would also constitute an insurable service.

Q: Wouldn't you get a lot of competition?

Smith: The pluralism and competition resulting from this type of system would yield some disorder but also some innovation in method and increases in patient freedom-of-choice.

Q: What about inequalities of geographic distribution?

Smith: The insurance system would tend to equalize per-capita purchasing power by geography and so gradually, the distribution of services.

Q: What about overutilization?

Smith: Perhaps it would be a problem but I would expect that reductions in the scale of the service bureaucracy might generously offset the risks of overutilization. Instances of gross overutilization can receive special review.

William G. Smith, M.D., Chairman, Department of Psychiatry, Rockford School of Medicine, Rockford.

⁵Background documents: *State of California—Health and Welfare Agency. California Mental Health Services Act. Sacramento, California Department of Health, 1974, 132 pp; (precis of Short-Doyle, Lanterman-Petris-Short, and related legislation and programs).*

Arthur Bolton. "Recent California Experience in Developing A Service System." (Talk at Zion, Illinois, February 10, 1972), Bolton Associates, 1731 I Street, Sacramento 95814.

Institution-Closing Issues

The basic dynamic in the historical trend toward decentralization is a clinical one, the greater efficacy of services proximate to ordinary life settings. But no movement toward local services occurred until major financial dynamics, particularly lower overall costs, ran parallel.

The closing of "extra" institutions and facilities is not difficult clinically, just politically complicated. The political considerations do not change the eventual outcome, but do increase the cost and lengthen the time required. Needed in order to close surplus facilities: a plan for the patients, a plan for the employees, a plan for the facility. After the plan is operating, twelve months is a reasonable schedule.

Provisions for the arbitration of such disputes as may arise between the central and local systems might be better dealt with in the next evolutionary step. It must be recognized that, when one of the parties to a dispute is also the referee, there is a special situation.

All the state plans we have reviewed here agree in the necessity of a local mandate to a local unit of government. Iowa and California were fortunate in already possessing such local units when this juncture appeared in their situations. Massachusetts appears to rely on an administrative action of its State Department in sharing or allocating portions of the State mandate, by mutual consent, through the activities of a State officer for each region charged with this duty. The township is well-developed in Massachusetts.

The Illinois Department's Plan implies creation of such local units but, apparently, leaves the implementation to other branches of government.

James S. Ward, M.D., Region Administrator, Illinois Department of Mental Health, Peoria.

Service Designs and Life-Cycle Length Disturbances

The major expansions of mental health service which have appeared over the past decade have included several new emphases in service design—for example, a focus on the crisis interval, on brief services, and on service close to ordinary life settings. Systematic followup-studies comparing this pattern of care with institutional care are now beginning to allow several tentative conclusions:

1. Life-cycle length disability states, such as schizophrenia, may be improved by such

services, but the basic risk-state, or vulnerability, is not greatly altered.

2. Brief, local, flexible, crisis-oriented services, when repeatedly applied to these very difficult cases, are of similar cost to institutionalization and may yield results only slightly better.
3. Brief, local, flexible, crisis-oriented services, when applied to life-cycle length disturbances, yield their clearest advantages with persons who have not yet experienced much institutionalization.

If these difficult conditions are dealt with locally, the care needs to be precise and continuing; under such conditions, significant amounts of institutionalization can be prevented, but the basic condition likely remains life-long.

Q: Is there a basic error in the centers movement?

Smith: The term "centers movement" contains more variety than we can easily characterize but, as a whole, it may have seriously underestimated the importance of services to persons with life-cycle length disturbances. There is no reason however, why this early error can not be rectified, as is in fact happening.

Q: How did the error occur?

Smith: Many movements seem to get started with an early phase which becomes unlinked from science. The situation surely is correctable with a reaffirmation of linkages with science and with problem-solving in a realistic manner.

William G. Smith, M.D., Chairman, Department of Psychiatry, Rockford School of Medicine, Rockford.

Federal Insurance Overview

National health insurance is a public policy concept which, while controversial, now seems an established near-term objective. Its place in our current discussions derives from the estimate that, when in place, national health insurance will add significantly to individual purchasing power for acute and chronic illness services and for some disability services.

Premises. Health care ought not to be related to income. The coverage system needs equally to include employed and unemployed persons. Coverage should be universal to all citizens. The benefits package must cover all major costs, with no upper limit, with regulation by review of

utilization patterns. It is cheaper to buy more benefits and to lower screening and access costs. Pluralism in auspices-of-service yields valuable flexibility and openness to productivity advances and technological evolution. The basic mechanism of regulation is oriented to science, to civic values and to consumer experience; it must be quick and precise, visible and public. Operational administration must be highly decentralized and locally differentiated to a variegated service terrain.

Q: When will it come?

Visotsky: Within several years.

Q: Won't some other governmental funding drop back?

Visotsky: Likely, current levels of effort will be frozen in for a decade.

Q: How will it effect the centers movement?

Visotsky: The centers provide a lot of social services which will not be covered under Federal insurance, but which can expand as Federal funds begin to cover other parts of what centers do. All agencies will seek to position themselves to qualify some portions of what they do for Federal coverage.

Harold M. Visotsky, M.D., Professor and Chairman, Department of Psychiatry, Northwestern University Medical School, Chicago.

Summary and Conference Closing

The appearance of a Department statement of longer-range purposes is welcomed by all. The February, 1975, Draft is particularly welcome because it highlights the strategic fact that the only legal mandate for services which exist in Illinois is set at the state level. Although local services have been growing under permissive "708" legislation, the Draft document suggests that further growth to a full local system would likely need legislation providing a *local* mandate. The Plan alludes to the advisability of a shift in the service mandate to a local unit of jurisdiction but makes no legislative proposal in this direction.

The document suggests that a local mandate would need to be placed on a "local political

unit" similar to the State Planning Area. In addition it suggests that, in portions of the State, the Planning Area does not correspond with any functioning political unit. This situation may only be resolved by arrangements which create some new political units.

The Plan specifically highlights the necessity of closing Department facilities representing excess capacity but stops short of announcing any target schedule of institutional closings.

The Plan does not specifically discuss the problem of confidentiality of patient records. There are reasons why this problem might be allocated to groups working to revise the Mental Health Code. Nevertheless, the Department is one of the largest constructors and custodians of patient records, and through its regulation of grant-in-aid agencies, one of the largest designers of record policy. Much of required agency reporting to the Department is based on reporting-by-person, for example, DHM Forms 1009A and 1075. There appear to be many hazards to the gradual accumulation of a government data bank of persons who are in, or have received treatment. Information which was placed there for purpose A may be retrieved for purpose B. Could not the Department consider, in its leadership capacity, advocating a public policy which prohibits reporting practices involving patient reporting-by-name?

Would not the Department's Plan be advanced by including the following changes?

A specific legislative proposal for a shift to a pattern of local service mandates; a specific schedule for shifting the major flow of state general revenue funds to local units of jurisdiction and, of course, allowing such local units to continue to purchase any services they wish from state facilities at actual cost; a decision to close non-accredited state facilities and to spend the additional money which would have been needed to achieve accreditation in local services; a decision to remove the Department from its conflicts of interest by distributing all general revenue funds to local units on a per capita basis; a recommended prohibition against any reporting and monitoring practices which involved reporting-by-person to any governmental unit in Illinois.

Norris Hansell, M.D., Professor, Department of Psychiatry, Northwestern University Medical School, Chicago, and Medical Director, Champaign County Mental Health Center, Urbana. ◀

Adequate Use of Heparin

The Need for a Flexible Protocol*

BY GEZA DE TAKATS, M.D., F.A.C.S./EVANSTON

The dosage and timing of heparin as advocated today for prophylaxis and treatment of thromboembolism ignores two important facts. The first is that available commercial products vary widely in structure and potency and thus cannot be expected to evoke the same response even though they are given in units per kilogram weight. The second fact is that even in the same individual the response to heparin fluctuates during the course of a disease or during postoperative convalescence.

Since 1943 a simple bedside heparin tolerance test has been employed, which not only reveals the potency of the product to be used, but measures the response of the patient in different phases of his disease or surgical convalescence. This can be accomplished by a daily "in vitro" heparin tolerance, again at the bedside.

The initial doses of heparin when given for the management of acute thromboembolism must be large but the doses are cut down within a day or two to smaller subcutaneous doses. For prophylactic purposes, heparin is given in small subcutaneous doses for three days before operation but stopped the night before surgery. Anticoagulant prophylaxis is supplied by the release of heparin stored in the mast cells.

The present methods of fixed dosage by intravenous drip or pump result in giving too little or too much in different phases of thromboembolic disease and lead to an unacceptable incidence of thrombosis and hemorrhage: a failure of heparin administration.

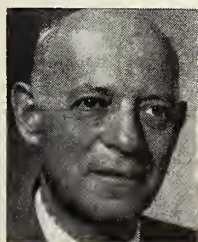
Introduction

Heparin is our most useful weapon against thromboembolism. Most surgical procedures such as thrombectomy and the partial or complete occlusion of the vena cava are only indicated when heparin cannot be given or when thromboembolic phenomena occur during *adequate* heparin administration. While heparin has been available commercially since the early forties, a multitude of dosage and timing schedules are in use throughout the world, none of which take into consideration two important facts: 1) in spite of International Standard Units, commercial heparin varies widely in structure and potency¹ and 2) the response of the clotting equilibrium to heparin shows marked fluctuations in each individual. Each person has his own hemostatic equilibrium, a wonderful balance between thrombosis and fibrinolysis and only when it fails do

we get thrombosis or hemorrhage. Even in the same person the response to heparin varies during the course of his disease or in the postoperative period.

In 1943 I reported a simple bedside test to measure the patient's heparin tolerance by injecting 10 mg. of heparin intravenously and determining clotting times before and every ten minutes after the injection.² Later this test was simplified by measuring venous clotting times only twice, immediately before and ten minutes after the test dose. Three hundred twenty-eight tests were run on one hundred and fourteen patients who could be readily classified into hypo-reactors, normoreactors and hyperreactors. The curves were remarkably constant in the same individual for fourteen days when not exposed to stress or certain drugs.

Serial determinations on postoperative patients showed a fluctuation from no response to a marked reactivity after the fourth or fifth day. We studied this response of the clotting equilibrium to surgical stress with Marshall in more detail³ and later simulated surgical stress by ACTH watching the reaction of the clotting time to this microstress.⁴



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It became apparent that in addition to enzymatic degradation and excretion the injected heparin may be stored in the mast cells and certain stimuli, namely nitrogen mustard, radiation and surgical stress, can degranulate the mast cells and release an anticoagulant which manifests itself by prolongation of the clotting time.⁵

On the basis of these findings, a method of heparin therapy evolved on our service with the object of minimizing heparin failures; i.e., thromboemboli and major hemorrhage during the administration of heparin. In reviewing the literature of the last few years on this subject, one is truly appalled at the fixed protocols, no cognizance being taken of the strength of various heparins and fluctuations of response by the individual patients. In this paper I will briefly describe the methods that have gradually been developed at the old St. Luke's Hospital, Research and Education Hospital of the University of Illinois and the Veterans Administration Facility at Hines, Illinois.

Treatment of Acute Thromboembolism

In the presence of an acute venous thrombosis, with and without embolism, the patient is resistant to heparin and it may take 800 units per kilogram body weight, something like 60,000 units in a patient weighing 70 kilograms, for the first day or two. The patient is always pretested with one cubic centimeter of the solution to be used, due to possible hypersensitivity to the drug, much less frequent now than in the early days. The flushing of the face, bronchospasm and eosinophilia were probable due to impurities.

Heparin is optimally given by continuous intravenous drip or with a pump, which takes continuous watching and results in house staff and nurse fatigue. According to a recent report by Salzman and his coworkers,⁶ major hemorrhage was seven times more frequent with intermittent injection than with continuous infusion and one-fourth less heparin was needed when the continuous infusion was given with a pump. In a large teaching hospital with a Coagulation Laboratory and adequate technical assistance, it is obviously a desirable procedure. Even so, unless the dose of heparin is adjusted to a suddenly decreasing requirement, major bleeding will occur.

In our experience the two hour intermittent doses of heparin given through a heparin-lock syringe and needle avoid the large peaks and dips of the clotting curve which occur when doses of 10,000 to 15,000 units are given every 4 hours. Yet one must emphasize that massive

hemorrhage hardly ever occurs on the first and second day after an operation and that long clotting times are quite transient. More objectionable is the fact that with the four hour, intermittent intravenous method the patient may be *unprotected* from thrombosis because the clotting time or other measures of heparin activity are supposed to be back to the preinjection level before the next dose. For this reason the patient is put on the two hour schedule for one or two days with a sensitized clotting time kept slightly above the normal standard of 11 to 16 minutes. After these booster doses and in the presence of obvious clinical improvement, subcutaneous doses of 10,000 units are started every 8 to 12 hours and maintained for three weeks. Frequently these subcutaneous injections are given by the patient at home if he or she leaves the hospital in eight to ten days.

Laboratory Control

The question of laboratory control immediately arises. It is fashionable now to use the partial thromboplastin time for this purpose, because the one, two or three tube venous clotting time and the capillary coagulation time are long outmoded. Our experience with the heparin-retarded one tube venous clotting time* kept not at 2-3 times the pre-injection level, but just slightly above normal, has resulted in massive hemorrhage only when patients at obvious risk of hemorrhage were heparinized or if surgical procedures or paravertebral injections were done just before or a few days after heparinization.

Some authors question the need for laboratory control since statistically they do not seem to prevent either hemorrhage or further thrombotic episodes. As long as one uses a simple bedside test in whole blood and not centrifuged blood, which eliminates the red cell and platelet factors, one gets a simple, possibly crude estimate of the total clotting apparatus. Curiously enough, the farther you get away from the bedside, the more you miss. Zuckerman and his associates⁷ have emphasized the various cellular factors which neutralize heparin activity.

The next question which arises: who is in charge of anticoagulant therapy? Some of the older surgeons well remember the time when they were the only ones using heparin.⁸ Obviously Medical Departments and later the Coagulation Laboratories under the Department of Hematology took more and more interest in this area. Today the busy surgeon and particularly

*0.1 of a unit of heparin to one cc. of whole blood.

the cardiovascular surgeon, who spends so many hours in the operating room, can hardly follow the clotting equilibrium of his patients. He had to relinquish the angiograms to the radiologist, the paravertebral blocks to the anesthesiologist and the anticoagulant therapy to the coagulationist and this is the way it should be. The only important point is that whoever directs anticoagulant therapy be in daily clinical touch with the patient and interpret the laboratory reports in the light of clinical findings. House staff, if available, is admirably suited for the purpose, with the attending physician available for consultation.

The Prevention of Thromboembolism

The literature is full of reports extolling the value of low-dose heparin given subcutaneously in reducing the incidence of deep venous thrombosis. Lately an international multicentre trial⁹ based on 4,121 patients over the age of forty years undergoing major elective surgical procedures showed a statistically significant improvement in preventing both deep venous thrombosis and pulmonary embolism. A standard regimen of 5000 units of heparin were given subcutaneously two hours before and eight-hourly thereafter for seven days or longer if the patient did not become ambulant.

The only objection to this prophylactic method is that of timing. As far back as 1950 we stated the principle that it takes much less heparin to prevent thromboembolism than to treat it¹⁰ and we also emphasized that what may be a mini-dose preoperatively may become a maxi-dose when the patient's response to heparin increases after the operation. For this reason we have used subcutaneous injections of heparin for three days prior to surgery and stopped the injections on the night before operation. In all this time involving thousands of patients at various institutions, only one massive hemorrhage has come to our notice. This is obviously of no statistical meaning, but if one examines the data of the large international trial of mini-doses,⁹ the incidence of operative and postoperative bleeding in the heparin group was definitely higher.

Particularly impressive are two reports in the same number of the *Lancet* on the prophylactic use of low-dose heparin to prevent deep venous thrombosis after total hip replacement.¹¹ In the first group the customary routine was used, starting the injections two hours before the operation and continuing it for 7-10 days after surgery.

Thrombosis occurred in 54% of the control group and 46% of the treated group. The only effect of heparin on the clotting process seemed to be that it delayed its onset. In the second study the 5000 units of heparin were given twice a day from the day of admission until the tenth postoperative day. The frequency of deep venous thrombosis was 50% in the control group and 11% in the treated group. The average time elapsed between admission and the operation was 10 days with a range from 2 to 30. What this means is that conflicting results in the two groups may well be explained by the multiple doses of heparin before surgery.

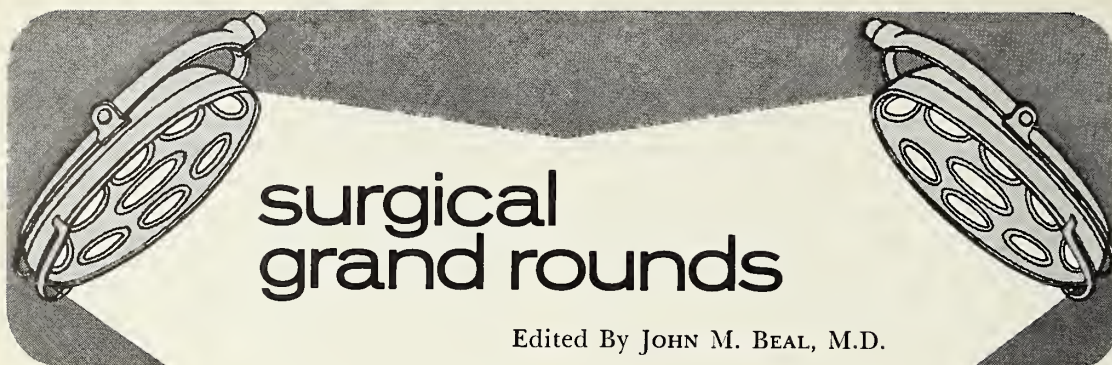
Our own schedule, developed purely empirically in 1947, called for 200 units (2 mg.) of heparin per kilogram weight given daily in 12 hourly doses for three days. This was done without laboratory control although we did know that a single dose of 10,000 units given subcutaneously would lead to variable rises in sensitized clotting time subsiding in 12 hours. Only recently the plasma heparin levels determined after 5000 I.U. of heparin showed huge variability from ineffective to hemorrhagic levels.¹² This is exactly why the individual heparin response has to be determined even for prophylactic doses. With a saturation of the mast cells by subcutaneous doses of heparin, it is stopped before surgery, relying on the "Wisdom of the Body"—homeostasis if you will—to discharge anticoagulant material.

Discussion

Most of our studies on heparin date back to the forties and fifties, when "statistical significance" was not an absolute requirement for credibility and acceptance. One might wonder why our therapeutic and prophylactic measures were never subjected to a statistical analysis. It has to do with the deep respect I have for real statistics which I acquired after an association with top-notch statisticians in some National Research Council-Veterans Administration studies on vascular injuries and cold injuries conducted after the Second World War. If two out of 1000 adults subjected to a major general surgical procedure will die of pulmonary embolism*, the event rate is 0.002 and if 80% reduction of mortality is the aim, then 20,000 subjects and 28,000 controls would be necessary to establish a benefit from heparin at $p < 0.01$. You can see why I felt like letting well enough alone. There are plenty of

*The rate is much higher after hip arthroplasty.

(Continued on page 250)



Surgical Grand Rounds are held weekly on Tuesday at 5:00 p.m. in the Offield Auditorium of the Passavant Pavilion of Northwestern Memorial Hospital. Patient presentations from Northwestern Memorial Hospital and the Lakeside Veterans Hospital form the basis of the discussions. This case report was part of the Surgical Grand Rounds of May 27, 1975.

Hirschsprung's Disease

Dr. Joseph Sherman: The study to be presented today was initiated in 1970, when Dr. Orvar Swenson and I began a review of a large number of the patients resected for Hirschsprung's disease between 1947 and 1973. These were patients resected by 13 pediatric surgeons, most of whom had been trained by Doctor Swenson.

A typical patient with Hirschsprung's disease is a newborn who has failed to pass meconium during the first 24 hours of life, has abdominal distention, and has bilious vomiting. An upright film of such a child will show multiple, dilated segments of bowel with some air-fluid levels. The differential diagnosis includes intestinal atresia, Hirschsprung's disease, meconium ileus, meconium plug syndrome, and meconium peritonitis.

The diagnosis is established by barium enema and rectal biopsy. A typical barium enema examination in Hirschsprung's disease shows a constricted aganglionic distal colonic segment with dilated proximal colon. There is usually a transitional zone between the aganglionic bowel and the normal proximal ganglionic bowel.

Treatment

The initial treatment of the disease is rectal irrigation with warm saline solution to relieve the obstruction. Once the obstruction is relieved and the patient is stabilized, a rectal biopsy is performed to confirm that there are no ganglion

cells in the myenteric plexus. Then a laparotomy is undertaken at which time biopsies are obtained from the colon wall to determine the distal limit of normal ganglionic bowel. At this point a double-barrel colostomy is established just above the aganglionic bowel. When the child is six to eight months of age and weighs approximately 20 pounds, all of the aganglionic bowel is resected and the normal proximal bowel is anastomized to the anus.

This operation was the first definitive procedure performed for Hirschsprung's disease and was described by Doctor Swenson in 1948. Criticism of this procedure has been concerned with potential mortality and morbidity from anastomotic leak, urinary incontinence, and impotence. Because of these considerations, two other procedures or modifications of the two have been developed. One is called the Duhamel operation, which is essentially a low anterior resection and implantation of the proximal ganglionic bowel posteriorly into the aganglionic bowel. The other is the Soave procedure, where the aganglionic bowel is left in place, the mucosa is removed, and the proximal normal bowel is brought through to the anus.

Purpose of Study

The chief reason that this study was undertaken was to determine the long term results and eventual function after the Swenson operation.

We reviewed 501 patients, operated upon from 1947 to 1973. Of these, 483, or 96.4%, were resected, using this abdomino-perineal resection that Swenson first described.

Initially, we reviewed the hospital records of patients with Hirschsprung's disease who were treated at Boston Children's Hospital, Tufts New England Medical Center and Children's Memorial Hospital in Chicago, to get the background information on the birth history, initial treatment, colostomy complications, and details of the resection. Then we attempted to interview and examine all of the patients in Boston, Chicago, and eight regional clinics around the United States to obtain a recent evaluation.

Fortunately, follow-up examinations were obtained on 90.1% of those resected. Of the 483 patients, 435 resected between 1947 and 1973 were contacted. We accumulated approximately 60,000 items of information on the 501 patients. Initially, the information was transferred to computer punch cards and magnetic tape for computer analysis at the Vogelback Computer center at Northwestern University.

Diagnoses

The initial admitting diagnoses were reviewed and only one-third were correctly diagnosed at the time of admission as having congenital megacolon. This is not surprising because one of the problems with Hirschsprung's disease is the variability in its presentation. Congenital megacolon may present in a newborn as acute obstruction, or in a five-year-old child with a swollen belly, spindly limbs, and a failure to thrive. Other children with Hirschsprung's disease have fecal soiling or chronic constipation as their chief complaint.

One reason for erroneous early diagnosis seems to be related to the length of aganglionic bowel. We compared the proximal limit of aganglionic bowel with the incidence of operation for "intestinal obstruction" prior to establishment of the correct diagnosis of Hirschsprung's disease. Of children with aganglionosis limited to the rectum, only 5% were mistakenly operated on for intestinal obstruction before the diagnosis of Hirschsprung's disease was made. However, this error in diagnosis increased in a linear fashion as the length of the aganglionic segment increased.

Three additional diagnostic points merit discussion: 1) time of passage of the meconium stool, 2) barium enema, and 3) rectal biopsy.

The time of passage of the first stool after birth was recorded in 266 of our patients and was compared with a group of normal infants. Only 16% of our 266 patients had a stool within 24 hours of life, while 94% of the normal infants had a stool on their first day of life.

Thus, the possibility of Hirschsprung's disease should be considered in any child who does not have a bowel movement within 24 hours of birth.

The accuracy of enema examination was dependent upon the age of the patient when the barium enema was performed and upon the length of aganglionic bowel. Three ages were compared for barium enema examination: less than one month, one month to twelve months, and those one year to 15 years of age. When a barium enema was performed on children less than one month of age, almost one-fourth of the barium enemas were interpreted incorrectly. There was also a high rate of error in children who had a very long segment of aganglionic bowel.

During the first 15 years of the study, rectal biopsies were rarely performed. Now we recommend rectal biopsy in all children suspected of having Hirschsprung's disease. In our patients, rectal biopsy was found to be 98% accurate.

Resection Procedure

The majority of the patients were resected between four months and four years of age. The oldest patient was 50 years of age when resected and was 64 years old when last seen.

Immediate postoperative complications in the 483 patients resected included wound infections in 22 (4.6%). All except one wound infection occurred in patients who had a preoperative fecal diversion. 268 of the patients were resected without preliminary colostomy and only one of these had a wound infection.

Postoperative intestinal obstruction within one month of resection occurred in 13 patients (2.7%). The most serious complication was anastomotic leak, which occurred in 24 patients (5%). Six of these 24 patients died as a result of this complication. These leaks accounted for most of the 14 cases of sepsis, 14 pelvic abscesses, and eight abdominal abscesses.

Anastomotic leak was not found to be related to either the age of the patient at the time of resection or to the length of aganglionic bowel. The only factor that could be implicated was the presence of Down's syndrome. The incidence of leak in those children was 25%, versus 5%

for the group overall. Unfortunately, other factors predisposing to leak, such as tension at the suture line or inadequate blood supply at the resected margin could not be quantitated for computer review.

Late postoperative complications included soiling after surgery, which occurred in 64 patients (13.3%) and anal stricture in 30 patients (6.2%). Soiling, which was temporary in most patients, was related to the length of the aganglionic bowel and occurred primarily in children with short lengths of aganglionic bowel. Seven of the 30 patients with stricture required a secondary operation, sphincterotomy. All but one of the remaining patients required only rectal dilatation. Interestingly, of these 30 strictures, only three had had an anastomotic leak.

Mortality

Mortality over the 25 years included 16 immediate postoperative deaths (3.3%) and six deaths from enterocolitis after discharge from the hospital. There were ten additional deaths of unrelated causes.

When age at the time of resection was compared to postoperative mortality, it was found that the risk was highest in those who were less than four months of age when resected. There was a 30% operative mortality in this group, which resulted in abandonment of the operation for infants under four months. Over the age of four months, the operative mortality was 1.8%.

284 of the patients have been followed for more than five years. Half of these patients were more than 16 years old when last interviewed and examined. 253, about 90% of those followed for more than five years, stated they have normal bowel habits, with one or two bowel movements per day. Nine of the patients followed for more than five years have fecal incontinence. These patients range in age from six years to 16 years old. One has mental retardation and is not trainable. Three of these patients have occasional staining that requires Ducolax suppository. Five have true fecal incontinence.

In addition, two patients have a permanent colostomy and two a permanent ileostomy. One of the patients with a permanent colostomy required a total colectomy for ulcerative colitis 19 years after his resection for Hirschsprung's disease. The other patient with a colostomy and the two patients with an ileostomy had major postoperative complications and refused consideration of colostomy or ileostomy closure.

None of the patients was found to have urinary incontinence or impotence. Eighty of the patients are married and cumulatively have 146 children.

Dr. John Beal: How early do you do the rectal biopsy?

Dr. Joseph Sherman: It can be done at any age; we normally do it as soon as the child has been evaluated and the general condition is stable. Rectal irrigation is performed to eliminate the abdominal distention and then rectal biopsy is accomplished. I would not do an abdomino-perineal resection without demonstration of aganglionosis by rectal biopsy. ◀

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Adequate Use of Heparin

(Continued from page 247)

pseudo-statistics and there seemed no need to fall into the trap. The other point of emphasis is our better understanding today of the heparin co-factor, without which heparin does not anticoagulate. While a whole number of factors have been implicated, none seems as reasonable as the importance of antithrombin iii. When the anti-thrombin level in the blood is low or normal but inhibited to react with heparin,¹³ heparin resistance is present.

The other heparin-neutralizing factor may well be a platelet factor¹⁴ and here a simple platelet count without a study of platelet function would not be revealing. But it still looks as if the heparin-retarded clotting time would be a sufficient guide for the clinician to give more or less of the poorly standardized units of heparin and to indicate the amount of heparin-neutralizing factors responsible for the individual response to heparin. ◀

References

- A list of references for "The Adequate Use of Heparin, the Need for a Flexible Protocol" may be obtained by writing *IMJ*, 55 E. Monroe, Suite 3510, Chicago 60603.

Nitrate in Water Supplies and Cancer

BY A. GELEPERIN, M.D., V. J. MOSES, AND G. FOX/CHICAGO

*Nitroso compounds are combinations of nitrate and amines from ubiquitous sources in our environment, both natural and man made. The interest in nitrosamines stems from the possibility that they are a cause of cancer in man. Variants of this basic chemical have produced cancer in trout, rats, mice, guppies and newts as well as mutations in *Drosophila* and *Saccharomyces*. Yet at the same time, other nitroso compounds are being tested for use in cancer therapy. The literature has burgeoned with reports from the laboratory¹⁻⁵ and conjectures concerning Man.⁶⁻⁹ A summary by Epstein reveals the prevalent attitude today, "It is likely that Nitrosamines are a major cause of human cancer in modern society. The evidence for this includes their ubiquity in the environment and the ease of their formation in vitro and vivo from simple precursors (nitrates and secondary amines both of which are common dietary constituents).¹⁰*

Model Study

A study was done recently in England concerning the possible development of a carcinogen in people drinking from a community water supply that had excessive nitrates.¹¹ The ten cities used in this study were separated into two groups. Nine communities had less than 10mg nitrate in their water while the other community had 90 mg/L. Death certificates from the first nine communities, for the years 1963 through 1970, were investigated to determine the number of deaths from stomach cancer. Deaths from cancer of the stomach, esophagus, liver, bladder and breast were determined in the high nitrate community. The basic premise of this study was that nitrosamines are produced in the bladder and stomach when either have significant bacterial flora. Achlorhydria is postulated to be a precursor in the latter organ. The towns had similar socio-economic factors, and were located in proximity to each other.

Stomach cancer data utilizing United Kingdom National age and specific cancer mortality as baseline showed that one control and the high nitrate community had significantly higher percents (+27% and +26%).

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An evaluation of observed to expected deaths from target organs in Workshop showed cancer of the stomach in males to be obs./exp. 1.31 and 1.93 in females. However, it was 0.95 and 1.00 for bladder cancer. This latter was not consonant with a survey in semi-rural England that showed an incidence of urinary tract infection to be 184 per 1000/patients per year.¹²

Illinois Study

The study in Illinois utilized three groups of communities previously used in a report on the effect of ad-lib ingestion of community water supply, during pregnancy, upon infant mortality and fetal death.¹³ One group had insignificant nitrate. The second had 40-45 p.p.m. nitrate in the spring of the year and the third group had constant high water nitrate concentrations. The three groups are comparable in socio-economic and health factors. Deaths from cancer of the esophagus, colon, liver, stomach and small intestines, as well as malignant and benign neoplasm, among white males and females, during an eight year period, (1959-1966) were studied.

The first two groups of communities were composed of cities and town. The third group was composed of villages. This group had no utilizable cancer population statistics since deaths were allocated by address. Population data was not available for any post office district in this area. Therefore, county data was used for this group. In these rural counties, the total population had dug wells either on a farm or in a village. Analyses of water samples from 263 farm supply wells in a comparable southern Illinois county showed that 73% had more than the "safe" 45p.p.m. The median nitrate concentration was 143p.p.m.¹⁴

A previous study of ours showed that ad-lib ingestion of the Danville community water, during the time of its highest nitrate concentration (spring), produced low levels of methemoglobin in mothers and their newborn.¹⁵ This low level of methemoglobin disappeared as nitrate values lessened and became negligible in the adult. In infants it disappeared when water concentration declined to less than 30p.p.m. Although no tests were done on fathers, we can assume that men would respond to water nitrate concentrations in a similar manner. Interestingly, low levels of methemoglobin continued in mothers but not in their infants when retested 1-2 months after going home. This is probably due to the fact that adults eat foods containing varying nitrate and nitrite amounts. The young infant receives a different fluid and solid diet. Nitrosamine precursors are present in all communities from food, but in the spring they are more concentrated in the water.

Community Statistics

The tabulations in Table I present the proportional mortality rates for three age groups in the three types of communities by location of cancer. This procedure showed no significant differences between the three community groups.

To obtain mid-census population data, the average of the 1960 and 1970 census figures were utilized. The difference between the two census years for each of the three population groupings was less than 5% for males and less than 7% for females. The mortality rates for this eight year period (Table II) were not significantly different for the three population groups. The difference between male and female deaths from cancer are shown in Table II. Cancer of the liver in males and cancer of the esophagus in females appeared slightly higher in high nitrate counties, but the figures were too small to be significant. State and the national data from 1964 for male-female death rates as well as cancer in the target organs including gall bladder, Table 3, were similar.¹⁶

Table I
Cancer Deaths by Specific Sites, Age Groups, Sex and Water Nitrate
ILLINOIS (1959-1966)

White Females												
Age Group	Nitrate Conc.	Oesophagus		Colon		Liver Primary		Stomach & S. Intestine		Other Malig. Neoplasm		All Cancer Total†
		No.	PMR*	No.	PMR*	No.	PMR*	No.	PMR*	No.	PMR*	
<45	High	0	0	8	7.6	1	0.9	4	3.8	89	84.7	105
	Hi Spring	1	0.8	5	4.2	0	0	5	4.2	98	83.8	117
	Insig.	0	0	15	10.1	1	0.6	1	0.6	123	83.1	148
45-64	High	4	1.1	53	14.9	3	0.9	12	3.4	272	76.8	354
	Hi Spring	2	0.4	49	10.9	2	0.4	13	2.9	372	82.8	449
	Insig.	5	0.7	86	12.1	3	0.4	20	2.8	572	80.6	710
65+	High	10	1.3	99	13.5	6	0.8	42	5.7	556	75.6	735
	Hi Spring	1	0.1	126	17.2	3	0.4	39	5.3	534	72.8	734
	Insig.	3	0.3	154	16.5	7	0.8	50	5.4	678	72.8	931
White Males												
Age Group	Nitrate Conc.	Oesophagus		Colon		Liver Primary		Stomach & S. Intestine		Other Malig. Neoplasm		All Cancer Total†
		No.	PMR*	No.	PMR*	No.	PMR*	No.	PMR*	No.	PMR*	
<45	High	1	1.1	3	3.5	1	1.1	2	2.4	75	88.2	85
	Hi Spring	0	0	6	5.4	0	0.0	3	2.6	100	89.3	112
	Insig.	2	1.4	8	5.7	2	1.4	3	2.1	119	84.4	141
45-64	High	10	2.4	43	10.4	6	1.4	17	4.1	327	79.2	413
	Hi Spring	14	2.9	41	8.5	2	0.4	22	4.6	392	81.7	480
	Insig.	24	2.9	61	7.4	4	0.5	36	4.4	680	82.7	822
65+	High	23	2.6	110	12.7	12	1.4	85	9.7	624	71.9	868
	Hi Spring	21	2.5	99	11.6	6	0.7	50	5.9	663	77.7	853
	Insig.	24	2.2	138	12.4	6	0.6	84	7.5	842	75.4	1,116

*PMR = Proportional Mortality Rate within each age group.

†Total Includes benign which comprise approximately 1.0%.

Table II
Cancer Death Rates for 8 Years Per 100,000 by Sex, Site and Water Supply Nitrate
ILLINOIS (1959-1966)

White Females

	Nitrate Conc.	Oesophagus No. Rate	Colon No. Rate	Liver Primary No. Rate	Stomach & S. Intestine No. Rate	Other Malig. Neoplasm No. Rate	All Cancer No. Rate	Population*
Total	High†	14 15.3	160 175.0	10 11.0	58 63.7	917 1005.0	1194 1211.0	90,440
All	Hi Spring	4 4.2	180 187.2	5 5.2	57 59.3	1004 1044.2	1300 1352.0	96,036
Ages	Insig.	8 6.0	255 191.2	11 8.2	71 53.0	1373 1029.7	1789 1342.0	124,920

White Males

	Nitrate Conc.	Oesophagus No. Rate	Colon No. Rate	Liver Primary No. Rate	Stomach & S. Intestine No. Rate	Other Malig. Neoplasm No. Rate	All Cancer No. Rate	Population*
Total	High†	34 38.4	156 156.3	19 21.5	104 117.5	1026 1159.4	1366 1443.6	87,016
All	Hi Spring	35 40.3	146 167.9	8 9.2	75 86.3	1155 1328.3	1445 1661.8	85,091
Ages	Insig.	50 43.0	227 195.2	12 10.3	123 106.8	1641 1512.3	2079 1787.9	113,812

*Average of 1960-1970 census populations for specific communities.

†Average of 1960-1970 census populations for specific counties.

Table III
DEATHS FROM CANCER OF GALLBLADDER

**By Community Water Supply
Nitrate Concentration**

**White Only
(1959-66)**

Nitrate Level	Relative Risk Male vs Female	Deaths - Male No. Rate	Estim. Pop.**	PMR	Deaths - Female No. Rate	Estim. Pop.**	PMR	Deaths - Total No. Rate
High (Constant >40ppm)	1 0.9	6 6.9* (0.8) +	87016	12.50	6 6.6* (0.7) +	90440	6.25	12 6.8* (0.9) +
High (Spring Only 40-45ppm)	1 2.2	16 18.8* (2.4) +	85091	33.33	37 38.5* (4.3) +	96036	38.54	53 29.3* (3.7) +
Insig. (<10ppm)	1 1.8	26 22.8* (2.8) +	113812	54.17	53 42.4* (5.3) +	124920	55.21	79 33.1* (4.1) +
Totals	1 1.8	48 16.8* (2.1) +	285919	100.00	96 30.8* (3.8) +	311396	100.00	144 24.1* (3.0) +

*Rate per 100,000 for eight (8) years
+Rate per 100,000 for one (1) year
PMR Proportional Mortality Rate

**Populations averaged between 1960-1970
Decennial Census data
($\chi^2 = 1.7$ d.f. = 2 $P=0.40$ (NS))

Summary

Evaluation of the literature suggests that carcinogenic effect varies according to genetic characteristics and life span, target organ studied, the Nitroso compound, route and duration of contact, body biochemical reaction to the substance, production of nitroso compounds by normal or pathological process, and the ubiquity of the substances or analogues and their precursors in the environment. John Higginson, Director of the International Agency for Research on Cancer, states, "You have to calculate the acceptable risk.

Most people are willing to take a fairly well defined risk in driving from A to B in their automobile, or in smoking twenty cigarettes a day, but when it comes to chemical in the environment, the sense of proportion seems to go out the window."¹⁸ A similar admonition has been voiced by Low.¹⁸

References

A complete bibliography of "Nitrate in Water Supplies and Cancer" may be obtained by writing IMJ, 55 E. Monroe, Suite 3510, Chicago 60603.

Task Force on Professional Liability Begins Malpractice Counterattack Program

BY MARTHA JOHNSON, *IMJ* ASSISTANT EDITOR

The Task Force on Professional Liability, sponsored by ISMS and comprising 30 health care oriented organizations, began the first phase of its "Malpractice Counterattack" during January and February by presenting a special program to ten hospitals in the Chicago area. The Task Force was developed last year to deal with the malpractice problem in Illinois and addressed itself to several areas of concern: legislation, insurance, counterlitigation and education. The Malpractice Counterattack program currently is the front line offensive of the Task Force. Dr. Fredric Lake, chairman of the Task Force and immediate past president of ISMS, stated that the purpose of the program is to let physicians know "where we've been, where we are, and where we hope to go."

During the program at each hospital, one representative from ISMS and one from the Illinois Hospital Association present to attendees information the Task Force has gathered about the liability problem in Illinois. This includes statistics about the seriousness of the problem and reports on Illinois' new malpractice law (PA79-960), the legislation for establishing a Joint Underwriting Association (PA79-962), the medical disciplinary laws, and the problems surrounding all of the new malpractice laws. These representatives also explain the 1976 Legislative Package which the Task Force hopes to put before Illinois legislators this year. The Task force has developed eleven bills, of which eight have been labeled "top priority." These deal with counterclaims, awards to patients, damage limit for non-economic losses, statute of limitations, collateral source rules, arbitration, witness rules, advance payments, *res ipsa loquitur*, and warranties. Finally the physicians are presented the possibility of formation of a captive insurance company by ISMS.

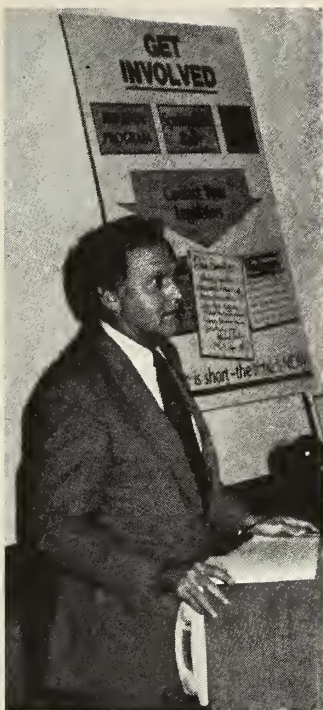
Physicians who have attended these meetings were given a packet of materials developed by the Task Force to supplement the information presented during the program. This packet contains a fact sheet entitled "Malpractice Update," which details more fully the facts presented by the ISMS and IHA representatives; a copy of the "Malpractice Report" newsletter published by ISMS to inform physicians, dentists, and hospital administrators about the latest malpractice developments; an information pamphlet about the ISMS Key Man Program, with a list of all state

legislators and their voting record on the malpractice bills; and a handbill describing the Task Force Legislative Package.

Through the Malpractice Counterattack, the Task Force also hopes to organize the hospitals in a call to action. The medical staff of each hospital hosting the program is asked to endorse a resolution supporting legislative initiatives of the Task Force and establishing a Legislative Action Committee. Such a committee would work with ISMS and its lobbyists to keep abreast of key developments in legislation and to disseminate up-to-the-minute information to the physicians of their hospital.

Another purpose of this program is to make legislators not only more aware of the continuing magnitude of the malpractice situation but also conscious of physicians' attitudes. Therefore, state representatives and senators from each hospital's district have been invited to address the hospital staff physicians on this issue and respond to the Task Force's legislative proposals. Although their response was not always agreeable, those legislators who have attended expressed a very positive attitude towards the efforts of the Task Force to educate the legislators as well as all physicians about the liability problem. The legislators were highly receptive to the information presented and the questions asked. After the adjournment of several meetings, legislators and physicians energetically continued their discussions.

Over 775 physicians and 37 legislators attended the Malpractice Counterattack at the first ten hospitals which hosted the program: Evanston, Holy Cross, University of Chicago, Loretto, St. Francis (Blue Island), Englewood, Weiss Memorial, Mercy, Little Company of Mary and Christ Community. The physicians of these hospital staffs have responded enthusiastically to the efforts of the Task Force and encouraged continuation of these worthwhile activities. The issues were strongly discussed and many pertinent questions asked. One predominant attitude expressed was the physicians' feeling that immediate action is needed. This animated response and the high degree of interest shown among those who attended indicate that the programs have been very effective and that the Task Force's educational objectives are being accomplished. The objectives of the Task Force will continue to be achieved by taking the Malpractice Counterattack program throughout the state. ◀



State Representative Brian Duff, a Republican from the First District, speaks to the issue of malpractice in Illinois at Evanston Hospital Malpractice Counterattack.



Robert Fox, M.D., ISMS Trustee, presents the call to action to fellow members of the Evanston Hospital staff. Dr. Fox encouraged the physicians of the hospital to support the Task Force initiatives by establishing a Legislative Action Committee.



Eugene T. Hoban, M.D., a Trustee of ISMS and a member of Loretto Hospital Medical Staff, makes a statement at January 21st's Malpractice Counterattack held at Loretto.



Harold G. Wedell, M.D., (left) President of the Medical Staff at Evanston Hospital, was the moderator for the Malpractice Counterattack program presented there. The speakers were: Fredric Lake, M.D., (middle) Past President of ISMS and Chairman of the Task Force on Professional Liability, and George Heidkamp, (right) Past Chairman of IHA and Executive Vice President of Northwestern Memorial Hospital.



John H. Panton, M.D., President of the Loretto Hospital Medical Staff, voices his opinion at the January 21st Malpractice Counterattack held at Loretto.

Washington Roundup

The Annual ISMS Washington Roundup, held January 25-28, was attended by approximately 90 physicians, wives and staff who participated in a wide variety of discussions and meetings in the nation's capitol. This year's program was geared towards increasing physician grassroots contact with their congressmen, while at the same time increasing awareness of the role of the federal bureaucracy in the practice of medicine.

This twin scope was highlighted by the presence of two keynote speakers. Addressing the participants at breakfast was Senator Charles Percy who stressed the necessity for physicians to inform their legislators of possible implications on a variety of health care issues currently being debated by the Congress. Special Assistant to the Assistant Secretary for Health, Roger Egeberg,

then outlined his view of the future of federal legislative initiatives in the health care field.

Other speakers included Stan Jones, Senator Edward Kennedy's top assistant on National Health Insurance; Dr. Eugene Rubel, Administrator of the new HSA program; Dr. Keith Weikel, Commissioner of the Medical Services Administration, who outlined the role of the federal government in the administration of the Medicaid program; Dr. William Munier, Acting Director of the Office of Quality Standards, who discussed the future of the PSRO program; and Mike Riley and Dr. John Zapp of the AMA Washington office, who briefed participants on the status of several key health proposals. The Roundup concluded with the annual ISMS Congressional Reception.



Congressman Abner Mikva talks with Drs. Herman Wing, Chicago; Joseph Skom, Chicago, ISMS President Elect; and J. M. Ingalls, Paris, ISMS President.



Dr. George Wilkins, Granite City, at Congressional Reception with Congressman Martin Russo.



Third District Trustee Robert Fox listens to Congressman Paul Simon talking with Drs. Eli L. Borkon, Carbondale, and Joseph L. Bordenave, Geneva.



Dr. Robert Becker, Joliet; Congressman Paul Findley, Congressman George O'Brien, and Dr. Ross Hutchison enjoy themselves at the Reception.



Congressman Henry Hyde at the Congressional Reception.



Congressman George O'Brien explains a point to Drs. Ross Hutchison, Gibson City, and John Ring, Mundelein.



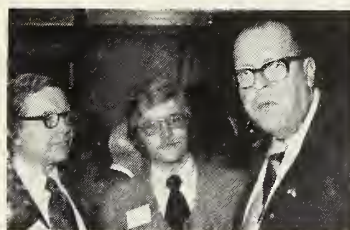
Dr. Eli L. Borkon, Carbondale, listens to a discussion between Congressman Tim Hall and Dr. Robert P. Johnson, Springfield.



ISMS Executive Administrator Roger White gathers with John O'Rourke, Deputy Director of the Office of Quality Standards, Dr. William Munier, Acting Director of the Office of Quality Standards, Department of HEW, and Representative Robert Michel.



Senator Charles Percy with Dr. and Mrs. Ronald Sumner, Dunlap.



Dr. Orren Baab, Hinsdale; Sky Baab, Legislative Assistant to Congressman McClory; and Congressman Edward Derwinski.



Physicians from Illinois at a Workshop held during the Washington Roundup in Washington, D.C.

Present Medicaid System Questioned

ISMS President, Dr. J. M. Ingalls, has called upon Gov. Walker to remove administration of the Medicaid program from the Illinois Department of Public Aid (IDPA) control to insure "first class" medical care for public aid patients and "clean up the Medicaid mess."

Dr. Ingalls charged that although pressure from a federal investigation has forced IDPA to take action against physicians allegedly guilty of Medicaid fraud, "IDPA continues to condone substandard medical care." As evidence, he cited the resignation last year of IDPA's Medical Advisory Committee—composed of physicians—over the department's refusal to deal effectively with physicians allegedly rendering poor quality care under Medicaid.

"IDPA's inability to effectively administer the Medicaid program has fostered a system of 'second class' care for Medicaid patients and causes all physicians to be tainted by actions of a few unscrupulous doctors," Dr. Ingalls said. To remedy the situation, he suggested that the governor

assign Medicaid administration to an outside contractor similar to the system implemented successfully in North Carolina.

The ISMS president also urged Governor Walker to enlist the services of the medical profession to "peer review" services prior to payment. He charged that IDPA repeatedly has refused to implement a system designed to identify substandard care. "The Illinois Foundation for Medical Care has the capability to review all Medicaid bills prior to payment to insure the services are medically necessary," Dr. Ingalls said.

In a related action, Dr. Ingalls has requested IDPA to provide ISMS with the names of physicians implicated in current investigations so that "full disciplinary action" can be taken if warranted. He also requested "any documentation which could be used to support charges of unethical conduct or other violations of the Medical Practice Act."

Child Abuse Follow-Up

An extensive article, authored by Dr. Daniel Pachman, appeared in the February, *Illinois Medical Journal*, relating to the Illinois Child Abuse Act. Most readers, of course, are familiar with the Johnny Lindquist case in Chicago. Perhaps preventable factors existed which would have obviated a most unfortunate incident. Physicians play a definite role in implementation of the Child Abuse Act. Under the new Act, physicians may assume custody of a child where suspected abuse exists until the Department of Children and Family Services takes over, usually within 24 hours.

A brief case report has been developed to identify when physicians are obligated under the Act to report and to take preventive measures.

Several months ago an approximately two-year-old Caucasian female was presented at an Emergency Room by her parents. The parents indicated the child had fallen and injured her arm. It was indicated that a private physician two days earlier had indicated it was a sprain. The child was uncommunicative and frightened, but did not cry. Upon examination she was found to have multiple bruises in various stages on the face, trunk and extremities. The arm was swollen, discolored and tender. Upon admission the diagnosis was cellulitis. During the hospital stay and subsequent examination a child abuse report was filed with the state. Subsequently she was released to the custody of her parents.

Some time following the initial hospital visit, the child had been seen in the office of a private physician, who had told the parents that they must stop abusing the child. The parents left.

The child was seen again in the ER after several months. The parents stated that she had been fine, had gone to bed, had arisen and vomited, and then went into a coma. The indications were that the child was dead; the ER staff applied resuscitative measures without success. On autopsy it was found that the child had sustained several ruptured organs, a perforated bowel, and a ruptured mesenteric artery. In addition, there were healed fractures of both legs and multiple contusions and abrasions of the head, torso and extremities.

It often is difficult to identify any one point in a progression of events at which someone may have acted more prudently. In cases of child abuse or suspected child abuse, the new Act grants immunity to those citizens of Illinois who report such cases, to facilitate and encourage reporting. In addition, the Act allows certain actions to be taken by health professionals to protect the health and well-being of a child where abuse is suspected.

This is presented in an attempt to identify to the membership that very serious situations exist and to alert them to the need for positive action under the Child Abuse Act. ◀

Four Humanities Seminars to be Supported by the National Endowment for the Humanities

Four seminars, for physicians and other members of the health professions, will examine basic issues bearing on medical practice in its ethical, philosophical, historical, and social contexts. Up to 15 participants will attend each seminar tuition free and will receive a \$1200 stipend to cover expenses, plus reimbursement for travel up to a \$300 maximum.

Further information and application forms can be obtained from each of the seminar leaders for their respective program. The seminars being offered are:

1) John C. Burnham, Department of History, Ohio State University, 230 W. 17th Ave., Columbus, Ohio 43210, will direct a seminar August 9 to September 3, aimed at identifying the particular historical forces which have shaped the medical profession and determined the direction of its development.

2) Professor H. Tristram Engelhardt, Jr.,

Institute for the Medical Humanities, University of Texas Medical Branch, Galveston, Texas 77550, will direct a seminar September 13 to October 8, to examine the general issue of patient's rights and the particular issue of the right to health care.

3) Professor Renee C. Fox, Chairman, Department of Sociology, 128 McNeil Building CR, University of Pennsylvania, Philadelphia, Pa. 19174, will conduct a seminar June 1 to 30, to examine from a cross-cultural perspective the ways social and cultural forces influence certain present-day medical phenomena and problems in American Society.

4) Professor William F. May, Chairman, Department of Religious Studies, Sycamore Hall 230, Indiana University, Bloomington, Indiana 47401, will direct the fourth seminar June 28 to July 23, to explore basic ways of interpreting human nature and obligation as they affect decisions in medical practice.

Convention Handbook



CONVENTION '76

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Delegates and Alternate Delegates to the Illinois State Medical Society
Downstate Delegates
Chicago Medical Society

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Program Summary by Days

ISMS Auxiliary Convention Program

Agenda of the 1976 House of Delegates

1976 Committees of the House of Delegates

Resolutions

*Physicians of
the Illinois State Medical Society
are cordially invited to a gala*

*President's Night
Dinner-Dance*

April 26, 1976

honoring

**J. M. Ingalls, M.D.
President
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featuring



Dave Major and the Minors

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Cermak, Miles

Chaljub, Najib
Christensen, Eldis M.
Ciskoski, Ronald J.
Clemis, Jack D.
Cohen, Meyer B.
Colbert, Maurice
Cunningham, Myles P.
De La Mata, Augustin
Farah, George S.
Frankel, Jerome J.

Froiland John L.
Gnade, Gerard R.
Goldstein, Henry A.
Gorecki, Joseph F.
Green, Martin W.
Greenfield, George
Gross, Alvin
Guzauskas, Anthony
Heller, Philip H.
Hemwall, Gustav A.

Hipskind, Myron M.
Housakos, George L.
Hudec, Ronald L.
Hussey, Frank L., Jr.
Jacobs, W. Francis
Johnson, Theodore
Juhasz, John C.
Kalsch, Harry E.
Kass, Harold M.
Kassriel, Robert S.

Kaz, Alex H.
Khan, Abdul Haye
Krolikowski, John R.
Lawrence, Arthur G.
Lounsbury, B. Franklin
MacNerland, Robert
McCabe, Mary Joan
Mella, Luis
Meyer, John E.

Delegates

Lasky, Harold J.
Lobraico, Rocco V., Jr.
Lorance, L. M.
Lukaszewski, Edwin J.
Marcus, Anna A.
Markoutsas, George C.
Marshall, William
Mehlinger, Kermit T.
Meisenheimer, Martin P.
Moles, Joseph B.

Murphy, Daniel J.
Mustell, Robert R.
Nagel, Frank E.
Nemecek, Raymond W.
Neskodny, J. F.
Nicholas, Everett E.
Norberg, Clarence A.
O'Brien, James C.
Odell, Lester D.
O'Donnell, John W.

Palumbo, Carl F.
Patlak, Erwin M.
Paull, Murry M.
Petty, David T.
Quinlan, Donald
Razim, Edward A.
Reeder, Clifton L.
Rice, C. Malcolm, Jr.
Ruiz, Gonzalo
Saletta, Frank J.

Sarley, Vincent C.
Shapiro, Maynard I.
Smith, C. Otis
Soboroff, Burton J.
Solon, Earl N.
Sperling, Richard L.
Suckow, Earl N.
Tansey, William J.
Thompson, J. Robert
Tope, John W.

Tovar, Jorge
Turner, George C.
Tworoger, Fred A.
Weigel, Charles J.
Wiggishoff, Cyril C.
Williams, Jack
Wolkonsky, Peter
Yanez, Frank
Yatvin, Harold

Alternate Delegates

Muehrcke, Robert C.
Mundie, Donald R.
Murray, Meredith B.
Nainis, William S.
Nayden, John
Nequin, Noel
Nowak, Frank J.
Nyhus, Lloyd M.
Odiaga-Garcia, Ignacio
Okner, Henry B.

Olivieri, Ernest P.
O'Neil, Colman J.
Oselka, Adam
Pantone, Anton M.
Parisi, Frank
Paul, Jerome T.
Pedroso, Aldo F.
Peele, Bernard T.
Perritt, Richard A.
Pleotis, Peter

Pruc, Jeremias N.
Rowlette, Raymond S.
Rodriguez, Douglas D.
Rogers, B. H. Gerald
Saltiel, Isaac
Santilli, Dennis M.
Schifano, Joseph
Seed, Randolph W.
Semerdjian, Ronald A.
Shobris, Martin

Siedlinski, John E.
Staley, Warren H.
Singh, Nerissa P.
Stromberg, William B., Jr.
Tatooles, Constantine J.
Ungar, Jacob
Urban, Conrad J.
Valadka, Bronius
Walkowiak, Lydia
Waller, Jesse E.

Weingarten, Charles Z.
Yanong, Pio U.

Officers of County Medical Societies

1976

COUNTY	PRESIDENT	SECRETARY
ADAMS Members: 92-Dist. 6	Richard Cooper 1416 Maine, Quincy 62301	Kazem Attai 1101 Maine, Quincy 62301
ALEXANDER Members: 7-Dist. 10	Gemo Wong 2020 Cedar, Cairo 62914	Charles L. Yarbrough 800 Commercial, Cairo 62914
BOND Members: 8-Dist. 7	M. Kenneth Kaufmann 105 E. College, Greenville 62246	John K. Dawdy 404 Forest Lane, Greenville 62246
BOONE Members: 13-Dist. 1A	Earl S. Davis 119 S. State, Belvidere 61008	Adrian Schreiber Caledonia 61011
BUREAU Members: 30-Dist. 2	Gerald Levisay 682 E. Peru, Princeton 61356	K. Dexter Nelson 101 Park Ave., Princeton 61356
CARROLL Members: 9-Dist. 1A	Eliseo M. Colli 102 E. Washington, Mt. Carroll 61053	Basilios Lambos Broad St., Lanark 61046
CASS-BROWN Members: 5-Dist. 6	R. A. Spencer 115 W. 4th St., Beardstown 62618	B. A. DeSulis 115 W. 4th St., Beardstown 62618
CHAMPAIGN Members: 198-Dist. 8 Larry Booth, Ex. Sec. 404 S. 3rd St. Champaign 61820	Michael J. Russo 104 W. Clark, Champaign 61820	H. Ewing Wachter 2108 W. Springfield, Champaign
CHRISTIAN Members: 24-Dist. 7	Norman Huss Assumption 62510	Edward D. Slifer 201 E. Pleasant, Taylorville 62568
CLARK Members: 5-Dist. 8	Howard G. Johnson Casey Medical Center, Casey 62420	James R. Buechler 410 N. Second, Marshall 62441
CLAY Members: 8-Dist. 7	A. Paul Nancy Flora Clinic, Flora 62839	Donald L. Bunnell Flora Clinic, Flora 62839
CLINTON Members: 11-Dist. 7	F. H. Ketterer 289 N. Main St., Breese 62230	Robert D. Roane 1131 Fairfax St., Carlyle 62231
COLES-CUMBERLAND Members: 38-Dist. 8	Wilfred Brunswick 1700 Wabash Ave., Mattoon 61938	Asit P. Basu 501 Jackson Ave., Charleston 61920
COOK Members: 8050-Dist. 3 Robert Lindley, Ex. Adm. 310 S. Michigan Ave. Chicago 60604	David S. Fox 826 East 61st St., Chicago 60637	Arthur R. Fischer 1845 Ridgeland, Berwyn 60402
CRAWFORD Members: 13-Dist. 8	Dean J. Pelley Allen Clinic, Robinson 62454	W. B. Schmidt 408 S. Cross, Robinson 62454
DE KALB Members: 54-Dist. 1A	Andrew H. Biscan 232 S. 2nd, DeKalb 60115	Thomas E. Kirts 232 S. 2nd St., DeKalb 60115
DE WITT Members: 11-Dist. 5	John W. Veirs 219 E. Main, Clinton 61727	George Costrovillo 109 S. Main, Farmer City 61842
DOUGLAS Members: 10-Dist. 8	R. N. Arrol 126 S. Locust, Arcola 61910	Max Johnson Newman 61942
DU PAGE Members: 502-Dist. 11 Lillian Widmer, Ex. Sec. 646 Roosevelt Rd. Glen Ellyn 60137	Joseph P. McKay 533 W. North, Elmhurst 60126	James P. Campbell 322 N. Blanchard, Wheaton 60187

COUNTY	PRESIDENT	SECRETARY
EDGAR Members: 16-Dist. 8	J. R. Shackelford 502 Shaw, Paris 61944	J. M. Ingalls Medical Center Clinic, Paris 61944
EDWARDS Members: 2-Dist. 9	Paul S. Neirenberg 17 W. Main, Albion 62806	Andrew Krajec Box 336, West Salem 62476
EFFINGHAM Members: 20-Dist. 7	John A. Charlstrom 416 W. Virginia, Effingham 62401	Donald Sweazy 806 N. 3rd St., Effingham 62401
FAYETTE Members: 8-Dist. 7	D. H. Rames 1029 N. 8th, Vandalia 62471	Hans Rollinger 1003 N. 8th St., Vandalia 62471
FORD Members: 13-Dist. 11	William A. Garrett Sibley 61773	Paul W. Sunderland 214 N. Sangamon, Gibson City 60936
FRANKLIN Members: 26-Dist. 9	James P. Durham Benton Med. Clinic, Benton 62712	D. P. Richerson P.O. Box 99, Christopher 62822
FULTON Members: 28-Dist. 4	Julius Manber Graham Hospital, Canton 61520	Marvin E. Schmidt Graham Hospital, Canton 61520
GALLATIN Members: 2-Dist. 9		John E. Doyle Ridgway 62979
GREENE Members: 7-Dist. 6	Jose Parcon 9th St., Carrollton 62016	James C. Reid Fillager Mem. Clinic, Greenfield 62044
HANCOCK Members: 9-Dist. 4	Werner Schoenherr Bowen 62316	James E. Coeur 630 Locust, Carthage 62321
HENDERSON Members: 1-Dist. 4		Silvino Lindo, Jr. Biggsville 61448
HENRY-STARK Members: 36-Dist. 4	Paul D. Binder 719 Elliott, Kewanee 61443	David E. Stearns 513 Elliott, Kewanee 61443
IROQUOIS Members: 18-Dist. 11	John R. Schlereth 101 W. Cherry, Watseka 60970	David C. Christy Watsaka 60970
JACKSON Members: 64-Dist. 10	Robert P. Baysinger Box 2347, Carbondale 62901	Roger N. Klam Box 2347, Carbondale 62901
JASPER Members: 2-Dist. 8	Don L. Hartrich 1211 W. Jourdan, Newton 62448	Monico Low 609 S. Van Buren, Newton 62448
JEFFERSON-HAMILTON Members: 30-Dist. 9	James C. Chow 407 Cardinal Dr., Mt. Vernon 62864	Antonio Boba P.O. Box 643, Mt. Vernon 62864
JERSEY-CALHOUN Members: 11-Dist. 6	Bernard Baalman Medical Center, Hardin 62047	Clyde Wieland Maple Summit Rd., Jerseyville 62052
JO DAVIES Members: 7-Dist. 1A	William Gillies 300 Summit St., Galena 61036	Lyle A. Rachuy 323 N. Main St., Stockton 61085
KANE Members: 290-Dist. 1 Michael Wild, Ex. Dir. 11 S. 2nd St. Geneva, Ill. 60134	James C. Pritchard 1725 S. St., Geneva 60134	Charles K. Bobelis 860 Summit, Elgin 60120
KANKAKEE Members: 102-Dist. 11	Bernard E. Ruder 401 N. Wall St., Kankakee 60901	A. A. Palow 555 S. Schuyler, Kankakee 60901
KENDALL Members: 5-Dist. 11	Walter Brill Main St., Oswego 60543	John P. Cullinan Oswego 60543
KNOX Members: 70-Dist. 4	Maurice A. Claman 555 N. Kellogg, Galesburg 61401	R. B. Howell 3333 N. Seminary, Galesburg 61401
LAKE Members: 323-Dist. 1 Julia Schulz, Ex. Sec. P.O. Box 148 Gurnee, Ill. 60031	Eugene Pitts 1324 N. Sheridan, Waukegan 60085	David Littman 363 Park, Glencoe 60022

COUNTY	PRESIDENT	SECRETARY
LASALLE Members: 108-Dist. 2	E. J. Fesco 206 Marquette, LaSalle 61301	Allan L. Goslin 712 N. Bloomington, Streator 61364
LAWRENCE Members: 10-Dist. 8 Ruth Gariepy, Ex. Sec. Lawrence City Mem. Hosp. Lawrenceville 62439	Gilbert Miller N. Main, Bridgeport 62417	Alexander Po R.R. #2, Lawrenceville 62439
LEE Members: 20-Dist. 1A	James G. McFetridge Medical Arts Clinic, Dixon 61021	Tiam Lie 1204 Beech Dr., Dixon 61021
LIVINGSTON Members: 28-Dist. 2	Leslie Lowenthal 420 N. Plum, Pontiac 61764	Karl T. Deterding 612 E. Water, Pontiac 61764
LOGAN Members: 22-Dist. 5	Glen Tomlinson #4 Doctor's Park, Lincoln 62656	Robert Brown Perry 523 N. Elm, Lincoln 62656
MACON Members: 150-Dist. 7 Mary J. Bretz, Ex. Sec. 1800 E. Lake Shore Dr. Decatur 62521	Wm. T. Couter 1314 Main St., Decatur 62521	Ezra Beyda 2220 N. Monroe, Decatur 62521
MACOUPIN Members: 22-Dist. 6	Robert H. Rutherford 224 E. Main, Carlinville 62626	Robert England 224 E. Main, Carlinville 62626
MADISON Members: 165-Dist. 6	Nancy Voegel 307 Henry, Alton 62002	Norman E. Taylor 95 S. 9th St., E. Alton 62024
MARION Members: 41-Dist. 7	Jose G. Bacallao 208 E. Third, Centralia 62801	W. P. Plassman Box 552, Centralia 62801
MASON Members: 6-Dist. 5	Henry W. Maxfield 315 E. Chestnut, Mason City 62664	Henry W. Maxfield 315 E. Chestnut, Mason City 62664
MASSAC Members 4-Dist. 9	James L. Bremer 805 Market, Metropolis 62960	
MCDONOUGH Members: 28-Dist. 4	Dennis R. Samuelson 525 E. Grant, Macomb 61455	Stephen L. Roth Box 258, Colchester 62326
MC HENRY Members: 87-Dist. 1 Evelyn Rosulek, Ex. Sec. 308 E. Kimball Woodstock 60098	William R. Larsen 13707 W. Jackson, Woodstock 60098	Daniel E. Horan 527 W. South, Woodstock 60098
MCLEAN Members: 103-Dist. 5 Mrs. Cathy Sengpiel Exec. Sec. 401 W. Virginia Normal 61761	George Irwin 401 W. Virginia, Normal 61761	Douglas R. Bey 401 W. Virginia, Normal 61761
MENARD Members: 1-Dist. 5	Robert J. Schafer 116 N. 5th, Petersburg 62675	Robert J. Schafer 116 N. 5th, Petersburg 62675
MERCER Members: 4-Dist. 4	Monty P. McClellan 309 NW 2nd St., Aledo 61231	James W. Hastings 301 NW 2nd St., Aledo 61231
MONROE Members: 9-Dist. 10	I. Kremer 854 W. Bottom, Columbia 62236	Edelberto Maglasang 109 W. Legion St., Columbia 62236
MONTGOMERY Members: 20-Dist. 5	Lon D. Rademacher Hillsboro Hospital, Hillsboro 62049	James T. Foster 8 Arrowhead Rd., Litchfield 62056
MORGAN-SCOTT Members: 40-Dist. 6	Bruno Schroetter 12 S. Hill, Winchester 62694	R. H. Kooiker 1600 W. Walnut, Jacksonville 62650
MOULTRIE Members: 5-Dist.-7	Phillip Best 14 N. Washington, Sullivan 61951	Dean McLaughlin 112 E. Harrison, Sullivan 61951

COUNTY	PRESIDENT	SECRETARY
OGLE Members: 17-Dist. 1A	L. T. Koritz 324 Lincoln, Rochelle 61068	Russell Zack 915 Caron, Rochelle 61068
PEORIA Members: 285-Dist. 4 David W. Meister, Jr. Ex. Vice Pres. 427 1st National Bank Peoria 61602	Robert A. DeBord 427 1st National Bk. Bldg., Peoria	Joseph O. Dean, Jr. 427 1st National Bk. Bldg., Peoria
PERRY Members: 17-Dist. 10	Gene Stotlar Medical Arts Bldg., Pinckneyville	Bill R. Fulk 207 E. Main, DuQuoin 62832
PIATT Members: 6-Dist. 7	George Green 121 N. State, Monticello 61856	Joseph Allman 121 N. State, Monticello 61856
PIKE Members: 9-Dist. 6	T. C. Bunting 321 W. Washington, Pittsfield 62363	B. J. Rodriguez 868 Mortimer, Barry 62312
PULASKI Members: 1-Dist. 10	A. L. Robinson Box 277, Mounds 62964	
RANDOLPH Members: 19-Dist. 10	L. C. Fiene W. Belmont St., Sparta 62286	C. S. Schlageter 818 E. Broadway, Sparta 62286
RICHLAND Members: 28-Dist. 8	I. Keith Edwards 1200 N. East, Olney 62450	Lawrence J. Knox 1200 N. East, Olney 62450
ROCK ISLAND Members: 175-Dist. 4 James A. Koch, Ex. Sec. 612 Kahl Bldg. Davenport, Iowa 52801	Louis C. Arp, Jr. 1409 6th Ave., Moline 61265	E. D. Lardner 3637 23rd Ave., Moline 61265
ST. CLAIR Members: 232-Dist. 10 Ed Belz, Ex. Sec. 4825 W. Main Belleville 62223	Dale H. Rosenberg 6401 W. Main, Belleville 62223	Lloyd E. Thompson 4601 State, E. St. Louis 62205
SALINE-POPE-HARDIN Members: 31-Dist. 9	Harold E. Elliott 203 N. Vine, Harrisburg 62946	Warren R. Dammers P.O. Box 281, Harrisburg 62946
SANGAMON Members: 263-Dist. 5 L. R. Brosi, Ex. Dir. 2100 Lindsay Rd. Springfield 62704	David B. Lewis Mem. Med. Center, Springfield 62702	Towfig Arjmand 1209 S. Fourth, Springfield 62704
SCHUYLER Members: 4-Dist. 4	R. R. Dohner 103 W. Washington, Rushville 62681	Henry C. Zingher West Side Square, Rushville 62681
SHELBY Members: 9-Dist. 7	R. K. Dutta Shelby Co. Med. Ct., Shelbyville	Otto G. Kauder P.O. Box 395, Shelbyville 62565
STEPHENSON Members: 52-Dist. 1A	C. W. Metcalf 1036 W. Stephenson, Freeport 61032	R. Goodspeed 1036 W. Stephenson, Freeport 61032
TAZEWELL Members: 45-Dist. 5 David W. Meister, Jr. Exec. Sec. 427 1st National Bank Peoria 61602	Roger E. Neumann 427 1st National Bank, Peoria 61602	Robert M. Wright 427 1st National Bank, Peoria 61602
UNION Members: 8-Dist. 10	Robert L. Rader 200 N. Main St., Anna 62906	William H. Whiting Box 410, Anna 62906
VERMILION Members: 95-Dist. 8	T. E. Pollard 917 N. Walnut, Danville 61832	L. W. Tanner 7 N. Virginia, Danville 61832
WABASH Members: 7-Dist. 9	Roger Fuller 1123 Chestnut, Mt. Carmel 62863	C. L. Johns 114 W. 5th St., Mt. Carmel 62863

COUNTY	PRESIDENT	SECRETARY
WARREN Members: 11-Dist. 4	W. Roller 309 S. Main, Monmouth 61462	Glenn W. Chamberlin 219 E. Euclid, Monmouth 61462
WASHINGTON Members: 4-Dist. 10	Charles Longwell 111 S. Washington, Nashville 62263	Jerry L. Beguelin Box 197, Irvington 62848
WAYNE Members: 9-Dist. 9	Arthur R. Marks 101 E. Center, Fairfield 62837	D. A. Gershenson 308 E. Main, Fairfield 62837
WHITE Members: 8-Dist. 9	J. G. Harrell Carmi 62821	J. A. Stricklin Carmi 62821
WHITESIDE Members: 44-Dist. 1A	J. P. McGee 1716 Locust, Sterling 61081	Jose Pino 1913 Avenue F, Sterling 61081
WILL-GRUNDY Members: 202-Dist. 11 Ron Bryant Exec. Sec. 3033 W. Jefferson Suite 220 Joliet 60435	Guy A. Pandola 333 N. Madison, Joliet 60435	Robert J. Kramer 3077 W. Jefferson, Joliet 60435
WILLIAMSON Members: 37-Dist. 9	Sawetan Vinai 121 N. 13th St., Herrin 62948	Herbert V. Fine 110 N. Division, Carterville 62918
WINNEBAGO Members: 330-Dist. 1A Mrs. Johanna Lund Exec. Adm. 310 N. Wyman St. Rockford 61101	Keith L. Wrage 2500 N. Rockton, Rockford 61103	John English 1316 Charles, Rockford
WOODFORD Members: 6-Dist. 2	Victor Jay 601 N. Jefferson, Washburn 61570	James W. Riley 109 S. Major, Eureka 61530

No Organized County Society

Johnson
Marshall
Putnam

Joint County Societies

Cass-Brown	Jersey-Calhoun
Coles-Cumberland	Morgan-Scott
Henry-Stark	Saline-Pope-Hardin
Jefferson-Hamilton	Will-Grundy

CALLS WILL REACH YOU EASILY AT THE 1976 CONVENTION

Doctor, please inform your staff that while you are attending the ISMS convention, you may be reached through the Physician's Message Center, open April 24-28, 1976 from 9:00 a.m. to 5:00 p.m. Here is the number to remember:

312-346-5435

This is a direct connection which will not go through the hotel switchboard.

ISMS Auxiliary Convention Program

- Sunday, April 25—12:00 p.m.** Pin and Gravel Luncheon
- 3:00 p.m.** Pre-Convention Board Meeting and Dinner
- 7:30 p.m.** Reception and Program for all members
- Monday, April 26—8:00 a.m.** Registration, Coffee and Rolls
- 9:00 a.m.** First House of Delegates Session
- Welcome—*Mrs. R. S. Hoover, Convention Chairman*
 "Women Behind the Men of Medicine"—*Mrs. Hershel Fulcher, President, Sangamon County Auxiliary*
- Presentation of 1976-77 Budget—*Mrs. Mitchell Spellberg, Finance Chairman*
- Announcement of Reference Committees
- Report of Registration and Credentials Chairman—*Mrs. Eugene Leonard, Chairman*
- Report of Nominating Committee—*Mrs. Thomas Glatter*
- Election of Officers
- Keynote Speaker—Jeanne Bray**
 "Safety on the Streets"
- Presentation of Humanitarian Award
- Presentation of Revisions & Resolutions—
Mrs. John Clark, Bylaws Chairman
- 12:30 p.m.** Presidents' Luncheon/Bicentennial Fashion Show
- 3:00 p.m.** Second House of Delegates Session
- Presentation of Conference Awards
- "The Lively Art of Being a Woman"—*Mrs. Reuben Gaines, Treasurer, Kane County Medical Auxiliary*
- 6:00 p.m.** ISMS President's Dinner
- Tuesday, April 27—7:30 a.m.** Public Affairs Breakfast
- 9:00 a.m.** Third House of Delegates Session
- COUNTY DAY**
- Announcements of Awards—membership, AMA-ERF, Health Education
- Presentation of 25 Years County Award Pins
- Presentation of 50 Years County Award to Marion-Clinton Medical Auxiliary
- 11:30 a.m.** "Special Patchwork Brunch"
- Installation of Officers
- 1:00 p.m.** Workshop for all members with new state chairmen
- 3:30 p.m.** Post-Convention Board Meeting

ISMS Program Summary By Days

(Preliminary)

All meetings to be held in the Palmer House.

Friday

April 23, 1976

7:00 p.m. IFMC Board Meeting

Saturday

April 24, 1976

10:00 a.m. ISMS/IFMC Board Meeting
10:30 a.m. IFMC Board Meeting
12:00 noon ISMS Board Luncheon
1:30 p.m. ISMS Board Meeting
5:30 p.m. ISMS Board Reception & Dinner
7:30 p.m. ISMS Board Meeting

Sunday

April 25, 1976

7:30 a.m. ISMS Board Breakfast Meeting
8:00 a.m. Registration Opens
9:00 a.m. IFMC Membership Meeting
11:00 a.m. District Caucuses
12:00 noon Annual Student Membership Meeting
2:00 p.m. House of Delegates Credentials Registration
2:30 p.m. House of Delegates
5:00 p.m. IMPAC Meeting
6:00 p.m. Delegates Buffet
6:00 p.m. U of Ill Alumni Dinner
7:30 p.m. Reference Committees

Constitution & Bylaws

- A. Officers & Administration
- B. Economics, Peer Review, Social & Medical Services
- C. Education & Manpower
- D. Environmental, Community, & Mental Health
- E. Finances, Budgets & Publications
- F. Governmental Affairs & Medical Legal
- G. Public Relations, Membership & Miscellaneous Business

Monday

April 26, 1976

7:30 a.m. ISMS Board Breakfast Meeting
7:30 a.m. Preventive Medicine Breakfast Meeting
8:00 a.m. Registration Opens
8:30 a.m. Alcoholism Meeting
9:00 a.m. Illinois Society of Internal Medicine Meeting
9:00 a.m. Emergency Physicians Seminar
9:00 a.m. ISMS Auxiliary Meeting
12:00 noon ISMS Auxiliary Luncheon
12:00 noon Illinois Society of Internal Medicine Luncheon
6:00 p.m. President's Reception & Dinner

**Tuesday
April 27, 1976**

7:30 a.m.	Public Affairs Breakfast
8:00 a.m.	Registration Opens
9:00 a.m.	Pediatric Meeting
9:00 a.m.	ISMS Auxiliary Meeting
9:00 a.m.	CME Accreditation Workshop
10:00 a.m.	PM&R Meeting
11:00 a.m.	Illinois Society of Pathology Meeting
11:30 a.m.	ISMS Auxiliary Luncheon
11:30 a.m.	Fifty Year Club Luncheon
12:00 noon	PM&R Luncheon
1:00 p.m.	House of Delegates Credentials Registration
2:00 p.m.	House of Delegates

**Wednesday
April 28, 1976**

7:30 a.m.	ISMS Board Breakfast Meeting
8:00 a.m.	Registration Opens
8:00 a.m.	House of Delegates Credentials Registration
9:00 a.m.	House of Delegates
2:00 p.m.	ISMS Board Meeting

Open Meetings Monday, April 26

- Alcoholism and the New Law
- Illinois Society of Internal Medicine
 - “The Role of the General Internist: The New Religion”
- Illinois Chapter, American College of Emergency Physicians
 - “Protocol for the Treatment of Rape”
 - “Carbon Monoxide Poisoning”
 - “Anaerobes and the Abscess”
 - “Hypovolemic Shock”
 - “Post Traumatic Pulmonary Insufficiency”
 - “Pericardiocentesis and Pericardial Tamponade”

Agenda

1976 House of Delegates

James A. McDonald, M.D., *Speaker*

Herman Wing, M.D., *Vice Speaker*

FIRST SESSION

2:30 P.M. Sunday, April 25, 1976
Red Lacquer Room
Palmer House
Chicago

1. Call to order by the *Speaker*,
James A. McDonald, M.D.
2. Invocation
3. Report of Committee on Rules and Order of Business
4. Report of Credentials Committee
E. K. DuVivier, M.D. and
Arthur A. Fischer, M.D.,
Co-Chairmen
5. Approval of the minutes of the April, 1975, meeting
6. Memorial service for deceased members since April,
1975, conducted by Jacob E. Reisch, M.D.,
Secretary-Treasurer
7. Reports of Special Guests
 - (a) Mrs. Eugene Vickery, *President*, Illinois State
Medical Society Auxiliary
 - (b) Mrs. Magda Brown, *President*, Illinois Society,
American Association of Medical Assistants
8. Introduction of special guests
9. Presentation of 1975 Medical Journalism Awards
10. Presentation of AMA-ERF check to Illinois Medical
Schools
11. Presentation of Hamilton Teaching Award
12. IMPAC Report
George T. Wilkins, M.D.
13. Illinois Foundation for Medical Care Report
Allan L. Goslin, M.D.
14. Report of Executive Administrator
Roger N. White
15. Introduction of AMA Delegates and Alternate Dele-
gates
Edward A. Piszczek, M.D.
16. The President's Address
J. M. Ingalls, M.D.
17. Remarks of Speaker
18. Resolutions and Supplementary Reports
19. New Business and Announcements
Delegates Buffet—6:00 p.m.
Reference Committees—7:30 p.m.
20. Recess until 2:00 p.m. Tuesday, April 27, 1976

SECOND SESSION

2:00 P.M. Tuesday, April 27, 1976
Grand Ballroom
Palmer House
Chicago

1. Call to order by the speaker
2. Invocation
3. Report of Committee on Rules and Order of Business
4. Report of Credentials Committee
5. Announcements and Introduction of guests
6. Reports of Reference Committees
 - A. Reports of Officers and Administration
 - B. Economics, Peer Review, Social and Medical
Services
 - C. Education and Manpower
 - D. Environmental, Community & Mental Health
 - E. Finances, Budgets & Publications
 - F. Governmental Affairs & Medical Legal
 - G. Public Relations, Membership and Miscellaneous
Business
7. Unfinished business
8. New business
9. Recess until 9:00 a.m. Wednesday, April 28

THIRD SESSION
9:00 A.M. Wednesday, April 28
Red Lacquer Room
Palmer House
Chicago

1. Call to order by the Speaker
2. Invocation
3. Report of Committee on Rules and Order of Business
4. Report of Credentials Committee
5. Induction of Joseph Skom, M.D., *President-Elect*, into office of President by J. M. Ingalls, M.D.
6. Address of President Skom
7. Announcements and introduction of special guests
8. Reports of Reference Committees
9. Elections
 - Report of Nominating Committee
 - (a) President-Elect (DS)
 - (b) 1st Vice President (CMS)
 - (c) 2nd Vice President (DS)
 - (d) Secretary-Treasurer (DS)
 - (e) Speaker of the House (DS)
 - (f) Vice Speaker (CMS)
 - (g) Trustees

<i>District</i>	<i>Terms Expiring</i>
3rd	Alfred Clementi
3rd	Robert T. Fox
3rd	Frederick E. Weiss
4th	Fred Z. White
5th	A. Edward Livingston
7th	Arthur F. Goodyear
8th	Eugene P. Johnson
 - (h) Delegate to AMA to take office April 28, 1976, and serve until December 31, 1977 (one to be elected to fill new delegate position)
- (i) Delegates to AMA to take office Jan. 1, 1977, and serve until Dec. 31, 1978
Terms Expiring
 Carl E. Clark
 Alfred J. Faber
 H. Close Hesselstine
 Maurice M. Hoeltgen
 William M. Lees
 John J. Ring
 Charles K. Wells
- (j) Alternate Delegate to AMA to take office April 28, 1976, and serve until Dec. 31, 1977 (one to be elected to fill new alternate delegate position)
- (k) Alternate Delegates to AMA to take office Jan. 1, 1977, and serve until Dec. 31, 1978
Terms Expiring
 David S. Fox
 Lawrence L. Hirsch
 Robert P. Johnson
 Fredric D. Lake
 Eugene T. Leonard
 Theodore R. Van Dellen
10. Fixing of per capita dues for 1977
11. Selection of meeting place and time for next annual meeting
12. Unfinished business
13. New business
14. Adjournment, sine die

Open Meetings Tuesday, April 27

- Illinois Chapter, American Academy of Pediatrics
 - “Stabilization of the High Risk Newborn”
 - “Chronic Diarrhea—Evaluation and Treatment”
 - “Present Status of Antibiotic Therapy in Childhood”
 - “Trauma in Childhood”
- Illinois Council on Continuing Medical Education
 - How to achieve accreditation for your hospital's CME program
- Illinois Society of Pathologists
- Physical Medicine and Rehabilitation

1976 Committees of the House of Delegates

COMMITTEE ON CREDENTIALS

Edward DuVivier, *Co-Chairman*, (DS)

Arthur R. Fischer, *Co-Chairman*, (CMS)

Frank J. Jirka, Jr. (CMS) William C. Perkins (DS)

George C. Markoutsas (CMS) John P. Pope (DS)

This committee shall consider all questions regarding the registration and certification of delegates. The chairman shall keep the Speaker of the House informed of the voting power thereof.

The committee shall distribute and receive the attendance slips and perform such other duties as may be assigned by the Speaker.

This committee shall meet at least one hour prior to the opening session of the House and one-half hour prior to the opening of the other sessions.

COMMITTEE ON RULES & ORDER OF BUSINESS

Vincent A. Costanza, *Chairman* (CMS)

Robert C. Hamilton (CMS) Wayne Leimbach (DS)

Harold J. Lasky (CMS) Eugene L. Vickery (DS)

This committee shall consider all matters regarding rules governing actions, methods and procedure, and the order of business (agenda) for the session of the House of Delegates. It shall work in close cooperation with the Speaker and Vice Speaker.

The committee shall contact the Speaker just prior to each session of the House to make sure that all recommendations for House action are included in its report.

TELLERS AND SERGEANTS AT ARMS

George Shinkus, *Chairman* (DS)

Walter H. Brill (DS) Vincent C. Freda (CMS)

Robert R. Mustell (CMS)

Standby: Robert Barnes (DS)

This committee shall serve the Speaker of the House of Delegates whenever a vote count is called for, whenever a ballot is scheduled, or the House goes into executive session.

REFERENCE COMMITTEE ON AMENDMENTS TO CONSTITUTION & BYLAWS

George T. Mitchell, *Chairman* (DS)

Edward G. Ference (DS) Rocco V. Lobraico (CMS)

William B. Frymark (DS) C. Malcolm Rice (CMS)

Standby: Paul Lorenz (DS)

Consultants: Joseph L. Bordenave, Eli Borkon, A. Edward Livingston, George Shropshear

This committee shall consider and report to the House of Delegates its recommendations on all proposed amendments to the Constitution and Bylaws.

REFERENCE COMMITTEE A (REPORTS OF OFFICERS AND ADMINISTRATION)

Alan M. Taylor, *Chairman* (DS)

Mark W. Hollowell (DS) Joseph B. Moles (CMS)

Kenneth A. Hurst (DS) Fred A. Tworoger (CMS)

Standby: Walter Plassman (DS)

Consultants: Arthur F. Goodyear, Eugene T. Hoban, Jacob E. Reisch

This committee shall consider and submit its recommendations to the House of Delegates upon the following reports:

President	Policy Committee
President-elect	President, American
1st Vice President	Association of Medical Assistants, Illinois Chapter
2nd Vice President	
Secretary	Advisory Committee to ISMS Auxiliary
Chairman of the Board	
District Trustees	Ethical Relations Committee
Trustee-at-large	
Speaker of the House	Committee on Redistricting
Vice Speaker	
AMA Delegation	Committee on Committees
Executive Administrator	
President, ISMS Auxiliary	Planning and Priorities Committee

REFERENCE COMMITTEE B (ECONOMICS, PEER REVIEW, SOCIAL & MEDICAL SERVICES)

Earl Klaren, *Chairman* (DS)
Homer L. Fleisher (DS) William A. Hutchison (CMS)
H. Frank Holman (DS) Cyril C. Wiggishoff (CMS)

Standby: E. J. Fesco (DS)
Consultants: Ross Hutchison, Eugene P. Johnson, Warren W. Young

This committee shall consider and submit its recommendations to the House of Delegates upon the following reports:

Committee on Drugs & Therapeutics
Council on Economics & Peer Review
Council on Social & Medical Services
Government Health Programs Reimbursement Committee
Director, Illinois Department of Public Aid
Director, Illinois Division of Vocational Rehabilitation
Comprehensive Health Planning Committee
Illinois Foundation for Medical Care

REFERENCE COMMITTEE C (EDUCATION AND MANPOWER)

Chairman (CMS)
O. W. Pfasterer (DS) Vincent C. Sarley (CMS)
F. H. Riordan (DS) George Gertz (CMS)

Standby: Charles F. Eddingfield (DS)
Consultants: Lawrence L. Hirsch, Joseph C. Sherrick, Joseph Skom, Fred Z. White

This committee shall consider and submit its recommendations to the House of Delegates upon the following reports:

Council on Education and Manpower
Illinois Council on Continuing Medical Education
Illinois Department of Registration & Education
Student Loan Fund

REFERENCE COMMITTEE D (ENVIRONMENTAL, COMMUNITY & MENTAL HEALTH)

J. Robert Thompson, *Chairman* (CMS)
Chas. A. DeKovessey (DS) Martin P. Meisenheimer (CMS)
Don E. Hinderliter (DS) Everett E. Nicholas (CMS)

Standby: E. C. Bone (DS)
Consultants: Robert R. Hartman, Henrietta Herbolzheimer

This committee shall consider and submit its recommendations to the House of Delegates upon the following reports:

Council on Environmental & Community Health
Council on Mental Health & Addiction
Director, Illinois Department of Public Health
Director, Illinois Department of Mental Health
Director, Illinois Department of Children & Family Services
Department of Corrections

REFERENCE COMMITTEE E (FINANCES, BUDGETS AND PUBLICATIONS)

Jack Williams, *Chairman* (CMS)
Robert H. Behmer (DS) John L. Hubbard (DS)
C. Larkin Flanagan (CMS) Mathew Kobak (CMS)

Standby: Ernest F. Adams (DS)
Consultants: Alfred Clementi, Robert T. Fox, Jacob E. Reisch

This committee shall consider and submit its recommendations to the House of Delegates upon the following reports:

Educational & Scientific Foundation
Finance and Medical Benevolence Committee
Publications Committee
Treasurer
Budgets prepared and approved by Board of Trustees

REFERENCE COMMITTEE F (GOVERNMENTAL AFFAIRS & MEDICAL-LEGAL)

David Helberg, *Chairman* (DS)
Robert P. Johnson (DS) John Hyde (CMS)
A. J. Kiessel (DS) Donald Quinlan (CMS)

Standby: Harold Kolb (DS)
Consultants: Fredric D. Lake, John P. Seward, Philip G. Thomsen, Warren D. Tuttle, Frederick E. Weiss

This committee shall consider and submit its recommendations to the House of Delegates upon the following reports:

Medical-Legal Council
Governmental Affairs Council
IMPAC
Insurance Committee
Task Force on Professional Liability
National Legislation Committee

REFERENCE COMMITTEE G (PUBLIC RELATIONS, MEMBERSHIP AND MISCELLANEOUS BUSINESS)

Stanley Budrys, *Chairman* (CMS)
Loren Boon (DS) A. Everett Joslyn (CMS)
Herbert V. Fine (DS) Kermit T. Mehlinger (CMS)

Standby: Merle L. Otto (DS)
Consultant: J. M. Ingalls

This committee shall consider and submit its recommendations to the House of Delegates upon the reports of the following committees and upon any other matters referred by the Speaker:

Council on Public Relations & Membership Services
Council on Affiliate Societies

Resolutions

Resolution 76A-1

Introduced by: William Yasnoff, Student Delegate
Subject: Amendment to Chapter I, Section 1H of the bylaws
Referred to: Reference Committee on Amendments to Constitution and Bylaws

WHEREAS, Testimony at reference committee hearings last year indicated that certain Illinois residents attending out-of-state medical schools wished to apply for student membership in ISMS; and

WHEREAS, If student membership in ISMS were open to Illinois residents attending out-of-state medical schools, it might encourage these students to practice in Illinois when their education is completed; therefore be it

RESOLVED, That Chapter I, Section 1H of the bylaws be amended as follows:

H. Student members. Student members are those who have been enrolled in an Illinois medical school or are Illinois residents enrolled in medical schools outside the state of Illinois, are of good moral character, professional and academic standing and student members of a component society.

Resolution 76A-2

Introduced by: Joseph L. Bordenave, M.D., for the Board of Trustees
Subject: Continued Funding for ICCME
Referred to: Reference Committee E

WHEREAS, The House of Delegates in 1971 recognized the growing need of and demand for continuing medical education by authorizing establishment of the Illinois Council on Continuing Medical Education, a unique organizational approach that unites the energies and resources of ISMS and the state's medical schools; and

WHEREAS, In 1973 the House voted that ISMS should "support the activities of the Illinois Council on Continuing Medical Education to the extent authorized by this House of Delegates" and has subsequently annually voted support for the Council (half of the AMA-ERF assessment); and

WHEREAS, During its first three years, ICCME has sponsored three statewide congresses on CME, published a monthly CME calendar for the *Illinois Medical Journal*, sponsored workshops for hospital staff and county society members, and organized the Illinois Hospital CME Consultation Service; and

WHEREAS, ICCME provides assistance to Illinois hospitals seeking CME accreditation as well as performs essential staff work for the Illinois CME Accreditation Program (including revision of accreditation documents in response to AMA critique) and was requested by AMA to offer its accreditation materials to other states as a model for the accreditation procedure; and

WHEREAS, ICCME has distributed over 10,000 copies of the unique handbook, "Your Personal Learning Plan," and has developed or reproduced a dozen other publications useful in CME planning distributed free of charge to Illinois physicians (and sold outside Illinois); and

WHEREAS, The popularity of these publications demonstrates that ICCME is a steadily growing source of facts and ideas useful for CME planning, and the reception given its programs demonstrates that ICCME is an effective medium for the interchange of useful ideas and practices among CME planners throughout the state as well as a provider of beneficial learning experiences for these planners; and

WHEREAS, Through all these activities, ICCME has gained a national reputation that has brought credit to its sponsors, the Illinois State Medical Society and the state's eight medical schools, and has stimulated interest in similar joint efforts in other states; and

WHEREAS, Illinois physicians, medical schools, hospitals and other health institutions have welcomed and requested ICCME services that do not produce income, proving the wisdom of previous House of Delegates action in providing funds for ICCME's basic operation, which in turn has made possible ICCME activities that can be self-supporting (such as workshops on CME technique); therefore be it

RESOLVED, That half (\$10) of each member's 1977 AMA-ERF dues allocation be directed to the Illinois Council on Continuing Medical Education for use in activities as determined by the ICCME Board of Directors.

Resolution 76A-3

Introduced by: David S. Helberg, M.D., for the Lake County Medical Society
Subject: Prescribing Eye Medications
Referred to: Reference Committee F

WHEREAS, Optometrists in various states have attempted to gain legislative license for the use of drugs for diagnostic or therapeutic purposes; and

WHEREAS, Optometrists in various states are attempting to gain legislative or regulatory designation as the primary entry-point for eye care; therefore be it

RESOLVED, That it is the policy of the Illinois State Medical Society that only physicians licensed to practice medicine and surgery are qualified to prescribe or use eye medications; that only such physicians should continue to be the primary entry-point for eye care; and be it further

RESOLVED, That the ISMS will vigorously oppose any legislative or administrative attempt in Illinois to give optometrists a license to prescribe or use medications, or to serve as a primary entry-point in the provision of eye services.

Resolution 76A-4

Introduced by: Fred Z. White, M.D., for the Board of Trustees
Subject: Amendment to Article VIII of the Constitution
Referred to: Reference Committee on Amendments to Constitution and Bylaws

WHEREAS, In accordance with Article X of the Illinois State Medical Society Constitution, an amendment to Article VIII was proposed at the 1975 annual business meeting, with two-thirds of the members of the House of Delegates concurring; therefore be it

RESOLVED, That the following constitutional amendment be adopted:

Article VIII. Conventions and meetings. The Society shall hold an Annual Convention during which there shall be a business meeting of the House of Delegates [and general scientific meetings] which shall be open to all registered members.

Resolution 76A-5

Introduced by: Fred Z. White, M.D., for the Board of Trustees

Subject: Amendment to Chapter VI. Duties of Officer
Referred to: Reference Committee on Amendments to Constitution and Bylaws

WHEREAS, In its report to the 1975 House of Delegates, the Select Committee recommended that the functions of the Illinois Delegation to the American Medical Association be described in the bylaws; therefore be it

RESOLVED, That Chapter VI of the bylaws be amended as follows:

Section 7. Delegates and Alternate Delegates to the American Medical Association. Members of the Illinois State Medical Society's delegation to the American Medical Association are officers of this society and, as such, share jointly with the Board of Trustees the responsibility for carrying out policies established by the ISMS House of Delegates as they pertain to AMA activities.

Members of the delegation are responsible for participating actively in the House of Delegates of ISMS and the AMA to the extent allowed under the bylaws of each organization. They are responsible for submitting to the AMA appropriate resolutions and they are obliged to seek passage of these resolutions in the AMA House of Delegates until such time as circumstances and/or additional facts make continued effort impractical or impossible.

Resolution 76A-6

Introduced by: Fred Z. White, M.D., for the Board of Trustees

Subject: Amendment to CHAPTER VII. THE BOARD OF TRUSTEES

Referred to: Reference Committee on Amendments to Constitution and Bylaws

RESOLVED, That Chapter VII of the bylaws be amended as follows:

Section 1. Composition. The Board of Trustees shall consist of: nineteen trustees elected by the House of Delegates, one trustee-at-large (the retiring president, who shall serve a term of one year), the president, the president-elect, the speaker and vice speaker of the House of Delegates, the first vice president and second vice president, and the secretary-treasurer. The chairman of the Illinois Delegation to the American Medical Association, or the secretary in the absence of the chairman, shall serve as an ex officio member of the Board of Trustees without vote.

Resolution 76A-7

Introduced by: Fred Z. White, M.D., for the Board of Trustees

Subject: Amendment to CHAPTER IX. COMMITTEES
Referred to: Reference Committee on Amendments to Constitution and Bylaws

RESOLVED, That Chapter IX of the bylaws be amended as follows:

Section 6. Board of Trustees Committees.

- A. The Executive Committee shall consist of the chairman of the Board, who shall serve as chairman, the president, president-elect, the first vice president, the chairman of the Finance and Medical Benevolence Committee, the secretary-treasurer, the trustee-at-large, and the immediate past chairman of the Board, provided he is still a trustee. *The chairman of the Illinois Delegation to the American Medical Association, or the secretary in his absence, shall serve as an ex officio member of the Executive Committee without vote.*
- E. *The Committee on Committees shall consist of three members of the Board appointed by the chairman. It shall serve to review the purposes, activities and structure of any councils or committees at the request of the Board. The committee shall recommend such changes in existing councils or committees as required to maintain the efficient operation of the Society.*

The activities and reports of the Committee on Committees shall be reviewed by the Executive Committee and approved by the Board of Trustees.

- F. The Committee on Constitution and Bylaws shall consist of five members of the Board appointed by the chairman, *with the Speaker of the House of Delegates as an ex officio member.* It shall: etc. . . .

Resolution 76A-8

Introduced by: Fred Z. White, M.D., for the Board of Trustees

Subject: Amendments to Chapter I of the bylaws

Referred to: Reference Committee on Amendments to Constitution and Bylaws

RESOLVED, That Chapter I Membership be amended as follows:

CHAPTER I. MEMBERSHIP

Section 1. Members.

- A. Regular Members. Regular members shall be those physicians licensed to practice medicine in all its branches in the State of Illinois, who are *either residents of the State of Illinois or who practice principally in Illinois*, are persons of good moral character and professional standing and members of their ISMS component society.

Section 2. Discrimination of Membership. Membership in the Illinois State Medical Society shall not be denied or abridged because of color, creed, race, religion, sex or ethnic origin.

Section 3. Tenure and Termination.

- B. Termination of Membership. Any person who is under sentence of suspension or expulsion from a component society shall not be entitled to any rights or benefits of this society, nor shall he be permitted to take part in any of the proceedings until he has been reinstated. Non-payment of dues by [May 1 of each year shall be grounds for] *an established final date, as hereinafter provided, shall automatically result in termination of membership.*

Resolution 76A-9

Introduced by: Fred Z. White, M.D., for the Board of Trustees

Subject: Amendments to Chapter II. Dues, Funds and Assessments

Referred to: Reference Committee on Amendments to Constitution and Bylaws

RESOLVED, That Chapter II of the bylaws be amended as follows:

CHAPTER II. DUES, FUNDS AND ASSESSMENTS

Section 1. Dues. Annual dues may be levied by the House of Delegates on each class of membership. The amount of dues shall be recommended by the Board of Trustees and shall be fixed by the House of Delegates and shall include the dues and/or assessments approved by the House of Delegates of the American Medical Association. These shall include the annual subscription to the *Illinois Medical Journal* which shall be at least fifty percent of the regular subscription price of the Journal. Only Regular, Associate, In-Training and Student members shall be assessed annual dues. The dues shall be paid by the component society for its members prior to [March 31 of each year] *an established delinquency date as hereinafter provided.*

Section 3. Assessments and Funds. In addition to dues, assessments may be made on dues-paying members [on recommendation of] *as may be recommended by the Board of Trustees and [approval of] approved by the House of Delegates. Unless specifically indicated as voluntary, any assessment passed by the ISMS House of Delegates shall be considered a part of a member's dues for purposes of membership in this organization.*

Resolution 76A-10

Introduced by: Allan L. Goslin, M.D., for the Board of Trustees

Subject: Selection and/or Endorsement of Candidates for AMA Positions

Referred to: Reference Committee A

WHEREAS, The business of the American Medical Association is conducted by its elected officers and Board of Trustees through various councils and committees; and

WHEREAS, Some AMA councils are composed of members elected by the House of Delegates and others are composed of members appointed by the Board of Trustees; and

WHEREAS, In addition to the annual terms of AMA officers, the terms of trustees, council and committee members are staggered so that every year a varying number of vacancies occur; and

WHEREAS, It is important that these recurring vacancies be filled by the most talented and appropriate AMA members, including regular and proportionate representation by ISMS members; and

WHEREAS, Election or appointment of Illinois physicians to leadership positions in the AMA depends upon an orderly nomination process; therefore be it

RESOLVED, That selection and/or endorsement of ISMS candidates for positions on AMA Board, councils and committees should be submitted by the ISMS Delegation to the AMA, through its chairman, only after consultation with the ISMS Board of Trustees and appropriate councils and committees.

Resolution 76A-11

Introduced by: Allan L. Goslin, M.D., for the Board of Trustees

Subject: Election of AMA Delegates

Referred to: Reference Committee A

WHEREAS, A strong and effective delegation to the American Medical Association depends upon the ISMS House of Delegates electing spokesmen who will represent the best interests of Illinois physicians within the overall framework of organized medicine nationally; and

WHEREAS, The most effective delegation is composed of seasoned members to provide continuity of effort as well as new members who are in a position to offer fresh viewpoints; therefore be it

RESOLVED, That AMA delegates should almost without exception be elected from those having served first as alternate delegates.

Introduced by: Joseph Skom, M.D., for the Board of Trustees

Subject: Marijuana

Referred to: Reference Committee F

WHEREAS, Use of Marijuana is widespread among citizens of Illinois, and is increasingly characteristic of youthful population in the age group of 9 to 16 years of age; and

WHEREAS, The safety of marijuana, medically, is subject to great questions; and

WHEREAS, Use of marijuana is a socio-legal problem, as well as medical; and

WHEREAS, Legal sanctions against use of marijuana have not prevented the spread of such use; and

WHEREAS, Uniform enforcement of existing laws against the possession of marijuana, due to the number and ages of the majority of persons involved, is neither possible nor desirable; and

WHEREAS, Current legal strictures against marijuana use seem to be largely unrelated to the medical effects of the drug itself; and

WHEREAS, Prosecution of persons possessing small amounts of marijuana diverts enforcement and legal resources from more socially necessary and desirable tasks, especially as these relate to drug misuse; and

WHEREAS, We must be responsive to socially oriented problems; be it

RESOLVED, That in terms of societal pressures and as a realistic approach, ISMS support decriminalization of possession of reasonably small amounts of marijuana for personal use, thus removing criminal penalties while assessing civil penalties; and be it further

RESOLVED, That the Illinois State Medical Society as a matter of policy state emphatically that legalization of the possession or use of marijuana is not endorsed; and be it further

RESOLVED, That since medical and psychiatric knowledge concerning the short term and long term effect of cannabis is very limited, medical research should be supported by public and private resources of the State of Illinois; and be it further

RESOLVED, That ISMS continue to discourage the abuse of marijuana.

Resolution 76A-13

Introduced by: Paul Stromborg, M.S., Intern-Resident Delegate

Subject: Establishment of Intern-Resident Business Session

Referred to: Reference Committee A

WHEREAS, It is the policy of the Illinois State Medical Society to expand communications between the society and interns, residents and medical students; and

WHEREAS, The Illinois State Medical Society has been a leader among state medical associations in developing mechanisms for communication by appointing students and housestaff members to its various councils and committees; maintaining an Advisory Committee to Physicians in Training, through which liaison is established with the Council on Education and Manpower and the Board of Trustees; providing full voting power for a housestaff delegate in the ISMS House of Delegates, and subsidizing the expenses of two housestaff representatives at each annual and clinical convention of the AMA; and

WHEREAS, The American Medical Association recommends establishment of Intern and Resident Business Sessions by state, county and metropolitan medical associations in order to increase communications vertically; and

WHEREAS, The present ISMS Advisory Committee to Physicians in Training fulfilled its liaison role adequately when housestaff membership in ISMS was small, it cannot be considered representative of such membership as it approaches 1,000; therefore be it

RESOLVED, That the Illinois State Medical Society shall establish an Intern-Resident Business Session constituted of democratically selected intern-resident members of this society; and be it further

RESOLVED, That the Advisory Committee to Physicians-in-Training be directed to develop a constitution and bylaws for the IRBS to be submitted for approval by the next session of the ISMS House of Delegates; and be it further

RESOLVED, That the responsibilities of the IRBS will include:

1. Nominating intern-resident representative for ISMS councils.
2. Maintaining liaison with the Council on Education and Manpower.
3. Electing its own officers, including a delegate and alternate delegate to ISMS.
4. Maintaining regular communication not only with its own members but with all physicians in the state.
5. Maintaining liaison with the Intern-Resident Business Session of the AMA; and be it further

RESOLVED, That the activities of the IRBS be financed by allocation of one-half of the dollar assessment paid by all members for maintaining liaison with medical students and housestaff, with an IRBS budget approved by the Board of Trustees; and be it further

RESOLVED, That the elected chairman of IRBS shall be invited to attend meetings of the ISMS Board of Trustees; and be it further

RESOLVED, When the Advisory Committee to Physicians in Training has completed the task of establishing an IRBS, it shall be dissolved and its responsibilities assumed by the Intern-Resident Business Session, which shall have assistance from advisors appointed by the Board of Trustees.

Resolution 76A-14

Introduced by: E. K. DuVivier, M.D., for the Madison County Medical Society
Subject: Malpractice Insurance
Referred to: Reference Committee F

WHEREAS, The malpractice problem in Illinois has reached a state of crisis; and

WHEREAS, Many physicians have suffered unwarranted malpractice insurance rate increases, and even unfair outright cancellations or denials of coverage; therefore be it

RESOLVED, That the policy of the Illinois State Medical Society shall be to protect the reputation of its members and their ability to practice medicine in the following manner:

In any group contract entered into by the Illinois State Medical Society, the following will be required—

1. Insurance company must submit charges against the insured physician in writing.
2. No policy change will become effective until the insured physician has been given adequate written notice.
3. If desired by either party, the decision shall be adjudicated by an impartial tribunal of Illinois State Medical Society peers.
4. The aggrieved physician shall then have the right to be present during the entire hearing.
5. He shall have the right to cross examine any witness and produce his own witnesses.
6. He shall have the right to be represented by medical colleagues of his choice and have the right to legal counsel.
7. He shall have the right to appeal a decision to the American Medical Association and/or to the civil courts.

Resolution 76A-15

Introduced by: E. K. DuVivier, M.D., for the Madison County Medical Society
Subject: Bicentennial Resolution
Referred to: Reference Committee F

WHEREAS, Two hundred years ago our country was created as a result of a tax rebellion; and

WHEREAS, The increase in the cost of running our state and federal government has been one of the major reasons for our disastrous inflation; and

WHEREAS, In the health area of government, the spending has been particularly uncontrolled; therefore be it

RESOLVED, That the Illinois State Medical Society seek legislation to require that a fiscal note be a part of every federal and state health publication and project; and be it further

RESOLVED, That such published costs and budgets be reviewed annually by the Illinois State Medical Society and that appropriate comments be publicized for the benefit of taxpayers; and be it further

RESOLVED, That ISMS propose such legislation in Springfield and request the AMA to submit similar proposals to the national congress.

Resolution 76A-16

Introduced by: David S. Fox, M.D., for the Chicago Medical Society
Subject: House of Delegates Interim Meeting
Referred to: Reference Committee on Amendments to Constitution and Bylaws

WHEREAS, The Chicago Medical Society supports the concept of biannual meetings of the Illinois State Medical Society House of Delegates; therefore be it

RESOLVED, That the Illinois State Medical Society House of Delegates hold a second meeting, to be designated the interim meeting, in a different trustee district than the annual meeting.

Alcoholism and the New Law

April 26, 1976

Palmer House, Chicago
(Private Dining Room 8)

8:30 a.m. "The Department of Mental Health and Developmental Disabilities and the New Law"
Le Roy P. Levitt, M.D., *Director*, Department of Mental Health & Developmental Disabilities.

9:15 a.m. "The Treatment of Acute Alcoholism"
James W. West, M.D., *Director* of Alcoholism Services, Little Company of Mary Hospital, *Assistant Professor* Department of Psychiatry, Rush Medical College.

10:00 a.m. "Medical Complications of Alcoholism"
Charles Whitfield, M.D., *Chairman* Illinois Chapter, American Medical Society on Alcoholism; *Assistant Professor*, Department of Medicine, Southern Illinois University School of Medicine.

10:45 a.m. Coffee and Questions

11:00 a.m. "How Maryland Has Implemented the Alcoholism Law"
Maxwell N. Weisman, M.D., *Director*, Division of Alcoholism Control, State of Maryland.

Sponsored By: Committee on Alcoholism and Drug Abuse
Illinois State Medical Society
Albert W. Ray, M.D., Chairman

Program Chairman—James W. West, M.D.

*Physicians and Auxiliary of the Illinois State
Medical Society are cordially invited to a
complimentary Public Affairs Breakfast*

featuring



***James R. Thompson**
Candidate for Governor*

***7:30 a.m. Tuesday, April 27, 1976
Palmer House***

CONVENTION '76

The 136th Annual Meeting
of the

Illinois State Medical Society
will be held at the

Palmer House, State and Monroe

Chicago, Illinois

April 25-28, 1976

- ISMS House of Delegates
 - Specialty Society Scientific Programs
 - Gala President's Party
 - Public Affairs Breakfast
 - Annual IMPAC Meeting

Further information about Convention may be obtained by contacting the Illinois State Medical Society, 55 E. Monroe, Suite 3510, Chicago, Illinois 60603. Phone: (312) 782-1654

PLAN NOW TO ATTEND CONVENTION '76

April 25-28, 1976, Palmer House, Chicago

For reservations, check accommodations desired and mail to:

Palmer House - Reservation Department
State and Monroe Streets
Chicago, Illinois 60690

Name _____

Company Name _____

Address _____

City _____ State _____ Zip _____

Arrival _____ Hour _____ am
 _____ pm Departure Date _____

Single \$31 \$37 \$39 \$42 \$45 \$48 **Palmer House Towers**

Double \$49 \$51 \$54 \$57 \$60 **Single** \$35 \$41 \$45 \$49 \$53 \$57

Twin \$49 \$51 \$54 \$57 \$60 **Double** \$53 \$57 \$61 \$65 \$69

Parlor and 1 Bedroom Suite _____\$120 & up **Parlor and 1 Bedroom Suite** _____\$136 & up

Parlor and 2 Bedroom Suite _____\$175 & up **Parlor and 2 Bedroom Suite** _____\$192 & up

For better choice of accommodations, early reservations are suggested. If rate requested is not available, the next available rate will be confirmed. Rooms will be held until 6:00 p.m. on stated date of arrival, unless a later time is confirmed.

All room rates are subject to additional 6.1% charge to cover Illinois hotel operators' occupation tax and Chicago hotel operator's tax, as well as a 2% Chicago accommodations tax imposed by the city of Chicago.

Doctor's News

VISITING PROFESSOR PROGRAM being pilot tested in six hospitals for one year. This program was developed by a subcommittee of the ICCME Executive Committee, including Drs. Mather Pfeffenberger, Jacob Suker, and Thomas F. Zimmerman, and will be offered to community hospitals who have demonstrated an interest and commitment to continuing education. The visiting professorship program is specifically designed to stress interaction between the physicians of the community hospital and the visiting professor. Therefore, an effort will be made to integrate the program with already organized continuing education and quality assurance activities of the medical staff organization, thus assuring the relevance of the visit to the interests of the practitioners.

"MALPRACTICE INSURANCE WAS \$15 A YEAR," says Roland I. Pritikin, M.D., "except when we were in the military service during World War Two, then it was \$10 a year. Now we are asked to pay \$6,000. It would be immoral to pass this cost on to our patients. Most of us have never even had a threat of a malpractice suit. Doctors and hospitals have to charge so much to pay for the life-saving equipment that comes with the nuclear age. No one objects paying a patient for negligence, or even for a compassionate award by an insurance company. In the present tragic situation the doctors blame the lawyers, the lawyers blame the insurance companies, the insurance companies blame the judges, the judges blame the juries, the juries blame the labor-unions, and the labor unions blame the American people. 'All of us are to blame, and we should all cooperate to end this American tragedy,' says Dr. Jack Ladenheim in his book, *"WRITE YOUR CONGRESSMAN, DAMMIT: (Dorrance & Co. Philadelphia 1975)*. The Talmudists who wrote the "Beatitudes" three centuries before the Sermon on the Mount said "Truth is a heavy millstone; that is why so few people choose to wear it."

REPORTING POSSIBLE CLAIMS OF MALPRACTICE—Professional liability (malpractice insurance) policies require that a physician promptly notify the insurer (or agent) as soon as one suspects that a claim or suit may be imminent. Do not wait for legal papers to be served, but use good judgment to identify the reportable incidents. Delay in reporting information may lessen chances to successfully defend any suit that may arise. In determining what incidents to report, be especially sensitive to the following: any threat by a patient or patient family member; any unfortunate result neither anticipated nor considered to be normal; any request for a copy of your complete records (particularly when you know a similar request has been made for the hospital records); any communication from an attorney representing a patient; any summons or subpoena served upon you or any of your employees. If you report an occurrence or incident that you *think* is important, the insurer's investigation will be handled discreetly and be limited to your office. However, if a claim is made, the investigation must necessarily be more thorough. Remember that the reporting of occurrences or incidents when no claim is made will not prejudice your insurance program. In fact, such report will strengthen your defensive position if a claim is filed at a later date. If in doubt, report. And report promptly.

1976 AMA-AMPAC PUBLIC AFFAIRS WORKSHOP to be held April 10-12 at the Shoreham Hotel in Washington, D.C. For information contact Public Affairs Division, AMA Headquarters, 535 North Dearborn St., Chicago.

CERTIFICATION EXAMINATION TO BE HELD OCTOBER 30-31, 1976, announced the American Board of Family Practice. The two day written examination will be held in seven cities geographically distributed throughout the United States. Deadline for applications is June 15, 1976. Information regarding the examination may be obtained by writing: Nicholas J. Pisacano, M.D., Executive Director & Secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Lexington, Kentucky 40506.

TELE-MED PROGRAM SPONSORED BY CHICAGO MEDICAL SOCIETY. By telephoning 663-5600, one can hear one of 150 authoritative and reliable health-medical information messages in English or Spanish. The topics available are listed numerically in a specially prepared brochure being distributed by CMS. TELE-MED is designed only as a reliable free health information service to furnish preventive health facts, help listeners recognize early signs of illness and help them adjust to serious illnesses. It is not to be used in an emergency, or to replace necessary professional medical care by a physician.

AMERICAN NURSES ASSOCIATION ESTABLISHES ACCREDITATION PROCESS for continuing education in nursing. The National Review Committee has been created specifically to accredit nondegree granting, continuing education programs preparing nurses for expanded roles. Members of the National Review Committee include nurses, physicians and societal representatives who are working together to assure quality educational programs.

PROFESSIONAL EDUCATION AVAILABLE ON JUVENILE DIABETES. The Juvenile Diabetes Committee of the American Diabetes Association, Greater Chicago and Northern Illinois Affiliate, Inc., reminds local hospitals, pediatricians, and other medical professional organizations that members of the Juvenile Diabetes Committee are prepared to discuss all facets of juvenile diabetes mellitus. Those who desire further information can contact: Juvenile Diabetes Committee, 620 North Michigan Ave., Chicago 60611. (312) 943-8668.

PHYSICIANS IN THE NEWS—Newly elected officers of the medical staff at Westlake Community Hospital are: **Joseph Interlandi, M.D.**, President; **Hugh A. Smith, M.D.**, Vice President; **John Tekla, M.D.**, Secretary; **Samuel Karras, M.D.**, Treasurer; and **Frank C. Sedlak, M.D.**, Member-at-Large.

Kate Kohn, M.D. has been named chairman of Rehabilitation Medicine at Michael Reese Medical Center. She has been acting chairman since 1970. Also from Michael Reese, **Roy R. Grinker, Sr., M.D.**, internationally known psychiatrist and former student of Dr. Sigmund Freud, has announced his retirement as chairman of the Department of Psychiatry and director of the Psychosomatic and Psychiatric Institute. Dr. Grinker will remain at the medical center as a consultant and researcher.

R. J. Kramer, M.D., Joliet, has been elected Vice President of the American College of Otorhinolaryngologists.

Martha Washington Hospital, Chicago, has elected new officers of its medical staff: **Richard Turbin, M.D.**, President; **Manuel Balandrin, M.D.**, Vice President; and **Peter Verges, M.D.**, Secretary-Treasurer.



President's Page

HOW COME . . .

- Inflation is cited as the reason politicians increase taxes but is ignored as a reason for justifying increased medical fees.
- People shy away from looking after their family's "elders" and senior citizens yet have the audacity to complain about increasing nursing home costs.
- Many idealistic individuals call for increased government decision-making power instead of trusting their *own* decision-making abilities.
- Most people don't want responsibility, just the opportunity to express opinions.
- Most people expect government—an administratively "heavy" organization—to do what they should be doing for themselves at less cost.
- Patients pay good money for a medical opinion and then ignore it.
- I can't sue a patient for not getting well when he didn't do what I told him . . . or even did things I told him *not* to do.
- The pro and anti-abortion groups don't argue their morality question someplace besides in the legislature. I don't think you can legislate morality.
- Physicians who are not members of organized medicine or bound by organized medicine's ethical restraints don't advertise.
- Critics who claim advertising will "lower costs" aren't required to prove their premise *before* they achieve legal changes. Another thing, will advertising add anything other than another bureaucracy responsible for controlling unethical advertising?"
- Gas prices have risen so dramatically if advertising "lowers costs."
- The nursing profession refuses to learn from the mistakes of organized medicine regarding specialization and continues to insist on nursing super-specialization.
- With the cry for private sector medical accountability there isn't an equal demand for accountability by the Veterans Administration and armed services. Aren't tax dollars also used in these areas?

Jm Ingalls, M.D.

J. M. Ingalls, M.D.

The IMPAC Council

invites

all Annual Meeting Participants

to attend the

IMPAC ANNUAL MEETING

5:00 p.m.

Sunday, April 25, 1976

immediately following

the House of Delegates

Speaker to be announced.

MEN OF MEDICINE, 1776-1976

Struggle and Triumph for Illinois' First Women Physicians

BY MARTHA JOHNSON, *IMJ* ASSISTANT EDITOR

Few women physicians are mentioned in the literature of medical history in Illinois before 1850. One of the earliest notations is of a medical woman named Lura Guymon, who settled in Vermilion County, near Danville, about 1830.¹ "Grandma Guymon," as she was called, had learned about medicine in her native Ohio. She was well respected as a doctor and midwife by both the white men and Indians, who were particularly interested in her knowledge about the use of herbs. Grandma Guymon died in 1884 at the age of ninety years. Another woman mentioned in a similar tale is Margaret Logsdon, who lived on a farm at Sandy Ridge just below Shawneetown.² A newspaper article says of her, "She was a physician, and knew all the cures for snake bite. Her specialty, however, was bringing young settlers into the world. For this she had a great reputation and a large practice." On one occasion, when a new Kentuckian had decided to arrive in the middle of the night, Dr. Logsdon, finding her skiff gone, swam the wide Ohio River in the dark to reach the cabin where her patient was waiting.

These are only a couple of the many women who have administered to the sick and served as healers throughout history without the title of physician. It is for historians and psychologists to explain why women gradually abandoned their age-old vocation as physicians. The opinion has been expressed that perhaps witchcraft, that cruel and barbarous plague which swept over Europe and America during the 17th and early part of the 18th centuries, was one of the causes.³ There was a popular belief at one time that women were in league with the devil to injure others. In such an atmosphere it is not surprising that women became afraid to study medicine. However, woman's desire to heal and

care for the sick reasserted itself in the last half of the 19th century when Elizabeth Blackwell became the first woman in the modern world to receive a diploma from an accredited school. After being refused admission by twelve regular schools, she was finally admitted to Geneva Medical College in New York, from which she graduated in 1849.

Women's Competence

Women everywhere who attempted to enter the field of medicine were met with prejudice and discrimination, not only from the medical fraternity, but also from the general public. Most observers, including women themselves, concurred in the judgment expressed by Dr. Alfred Stillé in his presidential address to the American Medical Association: "On the whole, then, we believe that all experience teaches that woman is characterized by a combination of distinctive qualities, of which the most striking are uncertainty of rational judgment, capriciousness of sentiment, fickleness of purpose, and indecision of action, which totally unfit her for professional pursuits."

Closed Doors

Illinois, as the rest of the states, was slow in providing medical education for women. In 1852, Emily Blackwell (Elizabeth Blackwell's sister) attended a course of lectures at Rush Medical College, but was not permitted to return the next year because the school had been censured by the Illinois State Medical Society for its impropriety in admitting women. It was not until 1869 that one of the medical colleges in Illinois became coeducational, that was Hahnemann Homeopathic College. The same



(Photo by Gates)

MARY THOMPSON HOSPITAL
1712 West Adams Street

year Chicago Medical College admitted three women: Mary Harris Thompson, Julia A. Cole, and Augusta Kent. These women were only accepted at the earnest solicitation of Dr. William H. Byford, a faculty member of the school, and friend and supporter of Dr. Thompson. Mary Thompson received her degree at the end of that year but the other two women were not allowed to complete their studies because the male students protested their presence and succeeded in keeping them out of the lectures. This protest was made on the basis that certain clinical material and observations had been omitted from the lectures in a mixed class.

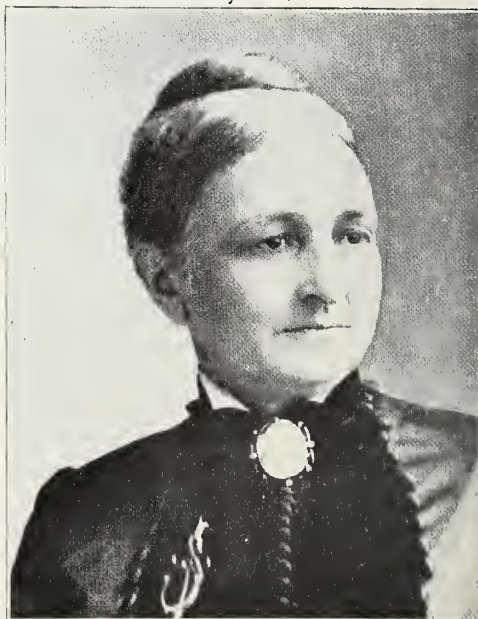
Exclusive Medical School Opened

These circumstances, although a defeat to those involved, prompted action to found a medical school exclusively for women. On August 2, 1870, Dr. Byford held a meeting in his office with Drs. Mary Thompson, Charles W. Earle, Norman Bridge, and Dr. and Mrs. Dyas. They discussed plans for establishing the Women's Hospital Medical College. There were no funds nor equipment for the school, but Dr. Byford succeeded in securing an excellent corps of professors. The first regular course of lectures was delivered soon thereafter, to 17 matriculants, in the parlors and dispensary of the Chicago Hospital for Women and Children.

Mary Harris Thompson

The Chicago Hospital for Women and Children had been established for indigent women and children during the civil war. Its founder

was Dr. Mary Harris Thompson, a graduate of the New England Female Medical College of Boston. Dr. Thompson had come to Chicago in 1863. Soon after her arrival, she became acquainted with Dr. William G. Dyas and his public spirited wife, Miranda, through her participation in a war organization called the "Sanitary Commission." Dr. Thompson worked arduously to relieve the distress and illness of thousands of war widows and orphaned children. It became apparent to her that a hospital especially for women and children was needed; thus through the generosity and active cooperation of Dr. William H. Byford, Dr. and Mrs. Dyas



MARY HARRIS THOMPSON

and other interested citizens, she established the Chicago Hospital for Women and Children in May, 1865.

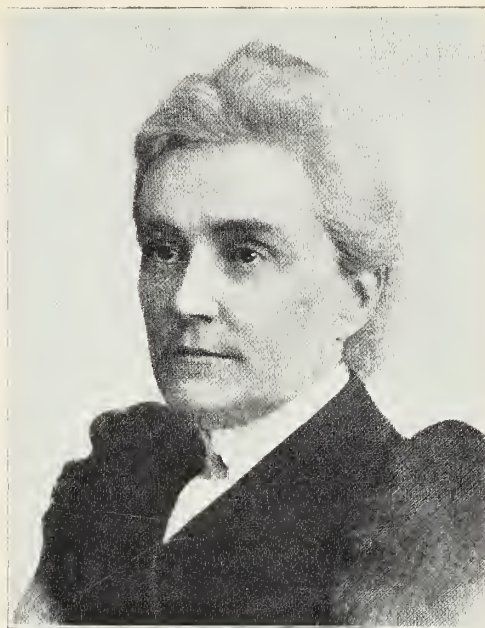
Dr. Mary Harris Thompson is a well known name in the history of Illinois medicine.⁵ She was not only head of the staff at the Hospital for Women and Children for thirty years, but she was also the first woman to receive a degree from Chicago Medical College, her second degree in medicine, and the first woman to do major surgery in Chicago. Dr. Thompson also held the professorship of clinical gynecology at Women's Medical College from its beginning until her sudden death on May 21, 1895. By her perseverance, thoroughness, and skill, this woman physician gained the acceptance and trust of her male associates and opened the door for other women to enter the field of medicine. After her death, the Hospital for Women and Children was renamed Mary Thompson Hospital.

Sarah Hackett Stevenson

Another woman who became a well known name in the field of medicine was Sarah Hackett Stevenson, the first woman to be a delegate to the American Medical Association.⁵ Dr. Stevenson, like Dr. Thompson, possessed the brave spirit required for a woman to overcome the obstacles placed in her path by the men in the profession. "In those early days of Chicago, there was much constructive work to be done along all lines," Dr. Marie Olsen writes, "and Dr. Stevenson, with her vision of the great possibilities for women and her desire to be of service, threw herself with enthusiasm and energy into these various activities. Numerous are the individuals, institutions and organizations that have occasion to remember that great woman with gratitude and love."

Dr. Stevenson was born in Buffalo Grove, Illinois, on February 2, 1841. Before attending medical school, she was a teacher and principal of the public school in Sterling, Illinois. In 1874 she graduated valedictorian of her class at the new Women's Medical College of Chicago. Dr. Stevenson also studied at the South Kensington Science School in London under Huxley and Darwin. In 1876 she began practice in Chicago and that same year was a delegate from the Illinois State Medical Society to the AMA meeting in Philadelphia, where her name was presented for membership by Dr. Byford.

Dr. Stevenson was the first woman appointed to the State Board of Health and the first



✓ SARAH HACKETT STEVENSON

woman member of the medical staff of Cook County Hospital. She organized and was head of the staff of the Women's Hospital on the grounds of the Columbian Exposition, where three thousand patients were treated. She also organized the Chicago Maternity Hospital and was among the founders of the Home for Incurables and the Illinois Training School for Nurses. She was professor of physiology in the Women's Medical College from 1876 to 1881 and professor of obstetrics from 1881 to 1894. She was obstetrician to Cook County Hospital, consulting physician to the Women's and Provident hospitals, attending physician at the Mary Thompson Hospital and president of the National Temperance and Chicago Maternity hospitals. Dr. Stevenson also authored a textbook on biology for beginners which was widely used in the schools. She died August 14, 1909, after years of overwork which shattered her health.

Marie Josepha Mergler

The third leading woman physician at this time in Chicago was Dr. Marie Josepha Mergler.⁵ She was born on May 18, 1851, in Bavaria, but moved to Palatine, Illinois, with her family, when she was two years old. She graduated in 1871 from the classical course at State Normal School in Oswego, New York, and taught for four years at Englewood High School in Chicago. Then she decided to study medicine. She graduated as valedictorian of her class at Women's Medical College of Chicago in 1879.



MARIE JOSEPHA MERGLER

Dr. Mergler was one of the first women to compete with male graduates for an appointment as intern at the Cook County Hospital in Dunning, Illinois, standing second in the examination. She received the appointment, but was not allowed to fill the position because she was a woman. Determined to obtain hospital experience, she went to Europe and studied for one year in Zurich, Switzerland, paying particular attention to pathology and clinical medicine.

Returning to Chicago, she began the practice of medicine in 1881. She was made adjunct professor of gynecology to Dr. Byford in the Women's Medical College, and upon his death in 1890, she became his successor as professor of gynecology. She was secretary of the faculty until 1899, when she became dean. The college previously having become the Northwestern University Woman's Medical School, she was appointed dean by the trustees of the university.

In 1882 Dr. Mergler was appointed to the attending staff of Cook County Hospital, being one of the first two women to receive such an appointment. In 1886 she became one of the attending surgeons of the Women's Hospital and four years later gynecologist at Wesley Memorial Hospital. She held both of these positions at the time of her death. In November, 1895, she was elected head physician and surgeon at the Mary Thompson Hospital for Women and Children. She was also professor of gynecology in the Post-Graduate Medical School of Chicago.

Dr. Mergler was a member of the AMA, ISMS and the Chicago Medical Society. She contributed numerous papers to the leading medical journals and also wrote a textbook on gynecology. Her life was strenuous and exhausting and brought on an untimely death on May 18, 1901.

Abby Fox Rooney

In downstate Illinois, Dr. Abby Fox Rooney was one of the first noted women physicians to enter the practice of medicine.⁶ She was born in 1844, in Ellington Township, Adams County, Illinois, the daughter of Oliver H. and Marietta Fox. After her graduation in 1864, from Clinton Liberal Institute of New York, she spent three years as a professor at Dean Academy in Franklin, Massachusetts. In 1873, she graduated from the Women's Medical College of New York Infirmary and returned to Illinois, where she opened her office in Quincy and commenced the practice of her profession.

Dr. Rooney has the distinction of being the first woman physician to be regularly licensed in Illinois (1874). Drs. Ellen Ingersoll of Can-





Abby Fox Rooney's home in Ellington Township, Adams County.

ton and Sarah Hackett Stevenson followed in 1875. In 1895, Dr. Rooney was elected President of the Adams County Medical Society. She also served a term as Vice President of the Illinois State Medical Society. Dr. Rooney was the first physician to practice in St. Mary's Hospital, Quincy. She specialized in the diseases of women. On March 17, 1934, at the age of 90 years, Dr. Rooney died in Los Angeles, California, her home since 1904.

Conclusion

Since these women opened the doors of medical practice, many other women have followed. Their names can be found in the records of the Chicago Women's Medical College and the Illinois State Medical Society. Apparently the Illinois State Medical Society wished to establish women in medicine firmly and publicly, once they had proven their competency, for they listed two women (Drs. Harriet Botsford and Lucinda Corr) as members of the Committee on Diseases of Children and one woman (Dr. Ingersoll) on the Committee of Obstetrics in the year 1877. These women worked tirelessly to demonstrate their ability, skill, and dedication in the field of medicine. ◀

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A History of the Practice of Medicine in Logan County, Illinois

BY FLOYD S. BARRINGER, M.D.

Logan County in Illinois is representative of a typical rural farm community of the midwest, and its early doctors were probably equally representative of the medical profession of the 19th century.

Logan County was carved out of Sangamon County in February, 1839, and reportedly named by Abraham Lincoln after his friend in the state legislature, Dr. John Logan of Jackson County. The first settlers to this area arrived in 1818, when early settlements were established on Elkhart Hill, Sugar Creek, Salt Creek, and Kickapoo Creek. Shortly thereafter, the first towns were organized, including Middletown (1832), Postville (1835), and Mt. Pulaski (1836). Lincoln, the present county seat, was platted in 1853.

There followed several small towns in the 1870's when the railroads were expanded through the area. The county seat steadily grew in size while many of the early villages faded. (See Table I)

The early doctors were often transient, like the first wave of pioneers, who were called "bee hunters" by their contemporaries. Several might settle in a small town, optimistic of its future, and then in a year or two, move on—usually west.

The first known doctor in the county was a Dr. Throgmorton from Indiana, who moved through here in the 1820's, lingered a short time at the Kickapoo settlement, and then went on west. Many of the early doctors made their living from farming or occupations in addition to the practice of medicine. There was Dr. John Deskins

of Postville—inn keeper, sheriff, postmaster, state legislator, and doctor. In the Lincoln Herald of December 19, 1857, we find the ad of J. G. Patterson, M.D., obviously a farmer—"one mile from Prairie Creek near the Springfield and Pulaski roads, offers his services to the citizens of Logan and Mason counties." And, again we read of Dr. Halstead Applegate of Eminence township who managed a farm and "practice, medicine for a few friends" till his death in 1851.

Others were more substantial. Dr. Green Hill from Tennessee settled in Middletown before the Civil War and practiced there for many years. Dr. Hill was the father of five sons, all of whom practiced in Illinois for more than fifty years. The

youngest son, Dr. T. F. Hill, now 101 years of age, still lives at Athens, Illinois. Dr. Barton Robinson of Yorkshire, England, who studied medicine in London, was one of the founders of Mt. Pulaski in 1836 and practiced there for many years.

Some of the early physicians graduated from established medical schools at Philadelphia, Louisville, Cincinnati, St. Louis and Chicago. However, most of the earlier doctors "read medicine" as an apprentice to an established physician and after a period of time established their own practice. It is encouraging to note, however, that many, who had been engaged in practice for some years, took time off from their practices to

Table 1*
Physician Census of Logan County

	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970
Logan county population	24,958	25,193	27,785	28,871	27,347	25,450	25,287	25,914	28,444	30,025
Logan county physicians	52	62	50	54	40	41	34	30	17	13
Physicians per capita	1:480	1:406	1:556	1:535	1:684	1:621	1:744	1:864	1:1673	1:2320
Atlanta Phys. per pop.	8/1500	9/1500	7/1200	5/1276	5/1400	4/1169	2/1290	2/1331	2/1568	2/1640
Beason Phys. per pop.	1/300	3/300	1/150	1/141	1/340	0/252	0/300	0/300	0/250	0/285
Broadwell Phys. per pop.	2/220	2/250	1/237	2/202	0/246	0/186	0/144	0/144	0/147	0/173
Chestnut Phys. per pop.	0/100	1/150	2/150	1/103	1/260	1/280	1/300	1/300	1/300	0/300
Cornland Phys. per pop.	1/125	1/150	1/100	1/110	0/160	0/219	0/160	0/130	0/125	0/130
Elkhart Phys. per pop.	3/500	3/500	2/425	2/553	2/457	1/448	0/436	1/420	1/418	0/435
Emden Phys. per pop.	1/150	1/300	2/300	1/330	1/462	1/401	1/396	0/406	1/502	0/552
Hartsburg Phys. per pop.	2/200	1/300	1/269	1/269	0/332	1/318	1/269	1/245	0/300	0/363
Latham Phys. per pop.	4/400	5/350	3/400	2/429	2/438	2/372	2/369	1/387	1/389	1/473
Lawndale Phys. per pop.	1/200	1/60	1/25	1/28	0/100	0/167	0/163	0/163	0/160	0/150
Lincoln Phys. per pop.	19/6417	24/7704	18/8705	24/10,026	20/9667	24/9442	21/8556	20/9605	8/12,088	9/14,069
Middletown Phys. per pop.	2/100	3/100	2/50	3/420	2/587	2/507	2/496	1/480	0/543	0/626
Mt. Pulaski Phys. per pop.	7/1800	6/2000	7/2000	8/1643	5/1543	4/1445	3/1378	3/1526	3/1689	1/1677
New Holland Phys. per pop.	1/225	2/250	2/250	2/358	1/450	1/353	1/336	0/343	0/314	0/331

*This census excludes the patients and doctors of the Lincoln State School.

attend a school and were graduated. Others were probably like Dr. John Clark, the second doctor of Mt. Pulaski, whose biographer wrote: "Though he had no diploma, he was a Christian gentleman, popular, cautious, and safe. He deserves to be remembered as a prominent and public-spirited citizen."

The first medical school in Illinois was established at St. Charles in 1842, lasting just seven years. In 1843, Illinois College Medical School was founded in Jacksonville and lasted five years, and in the same year Rush Medical College was founded in Chicago. Not long after this there followed a multitude of medical schools, aptly called "diploma mills." They were primarily commercial ventures with no real qualifications as teaching centers. Typical of these was Illinois Medical College of Chicago which specialized in training school teachers to become doctors. A diploma was given after attendance at a series of lectures given for three months each summer for four summers, and with little or no hospital experience. Many of the early doctors of Logan County were graduates of these schools and some were dedicated men and good doctors despite their inadequate early training.

Licensure

A review of the licensure and registration of doctors in Illinois is a most revealing experience. Six acts passed by the state legislature controlled this procedure.

In 1819, "An Act for the establishment of Medical Societies" divided the state into four medical districts, requiring the doctors to form a society in each district. It further provided that "Said societies shall have power to examine all students who may make application for that purpose; and grant diplomas under the hand seal of the president, before whom such students may be examined."

In 1825, "An Act prescribing the mode of Licensing Physicians" increased the medical districts to five, and added the proviso that each district society appoint one doctor to a Board of Censors. This Board had the duty of examining and granting licenses to physicians who had not previously obtained a "diploma of any respectable medical college or the license of any respectable medical society."

In 1877 "An Act to regulate the practice of medicine in the State of Illinois" required doctors to register with the state for the first time. Each doctor was required to have registered in the County Clerk's office his medical school di-

ploma whereupon he was given a certificate to practice. If the doctor had no diploma, he was examined by a Board of Examiners appointed either by the State Board of Health or the State Medical Society.

In 1899, "An Act to regulate the practice of medicine in the State of Illinois" required that every doctor be licensed by the State before beginning the practice of medicine, either by presenting a diploma of "a legally chartered medical college in Illinois" or by successfully passing an examination given by the State Board of Health.

In 1910, the Flexner report revealed the abysmal lack of adequate standards in the medical schools of the day and lead eventually to the licensure of doctors on the basis of adequate training and examination. This was finally achieved by the passage of the Medical Practice Act of 1917, as amended in 1923.

And so, in 1976, we see the passing of the last remaining few of those physicians who obtained license to practice medicine in Illinois before the establishment of those rigid requirements in training and examination that guarantee the high standard of medical care today. And coincident with their passing, we see the advent of those measures striving to guarantee the continuing high quality of medical care rendered by the practicing physician long after his or her initial licensure.

This is not to detract from the honor and glory of the country doctor of a bygone day. No defense of his practice is necessary. Without adequate training, without benefit of laboratory and X-ray, and without benefit of consultation, he developed a reliance on his understanding of human nature and disease that served him well. And with his proven dedication, he earned a reward that is the envy of the physician of today—the confidence and the respect, amounting at times to idolatry, of his patients. ◀

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Novel Treatment For Epistaxis

By R. D. GREENWOOD, M.D.

Methods of treatment in use in the early years of medical practice in Illinois would be considered shocking by modern standards. Epistaxis, a common problem a century ago, was usually treated by nasal packing. Dr. E. A. D'Arcy, a practitioner in Jerseyville in 1859¹ was treating a 40 year old man with severe epistaxis which had produced anemia and debilitation. He treated it with packing and then repacked "front and rear," but the patient continued to hemorrhage severely. Therefore, he tried a novel approach.

"The idea here struck me that I would endeavor to make direct pressure, and did so, by means of the intestine, such as is used in sausage making, introduced throughout the whole extent of the nostril, the posterior end being previously ligated. Water was then poured into the front end, and pressure made by forcing the water into the nostril. But another failure overtook us, as the intestine burst from the pressure."

"I then determined to try something of more strength, and the suitability of the oesophagus of a sheep in this case, came to my mind. A sheep was immediately killed, and the oesophagus removed. We properly introduced the oesophagus of the sheep, ligated it as in the previous attempt, and poured in the water. Then ligated the front end, pressed up the water by compressing the oesophagus with the hands until the pressure produced severe pain in the nares. The bleeding at once ceased—we were completely successful. The pressure gradually lessened by the accommodation of the parts, and the pain subsided. The pressure needed no renewal, and the oesophagus was removed on the second day, without hemorrhage. Recovery was slow, but complete."

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Etiology Of Congenital Malformations

By R. D. GREENWOOD, M.D.

The etiology of congenital deformities was quite mysterious in the last century. Dr. B. Woodward a practitioner in Galesburg, Illinois, presented two cases from his practice as examples of a frequently held theory that mental impressions of the mother could produce the defects.

Case 1

"March 12, 1854; today confined, Mrs. C. Rowe, mother of two previous children; labor tedious; child a male; almost every part deformed. The head was drawn on one side and the cheek adherent to the right shoulder; no ear on that side; arms, hands, and legs deformed; one foot drawn up and adherent to the side of the leg; anus imperforate; penis rudimentary. The child made a moaning noise, and lived about an hour."

"Mrs. Rowe called upon me when she was in the third month of gestation, and stated that "she feared she had marked her infant." She had been visiting a friend, and while there, a child had a fit, in which she was very much distorted, and had frightened Mrs. R. so much that she feared her babe "would look as the child did." I tried to reason her out of it, but

she remained in the same state of mind till her confinement."

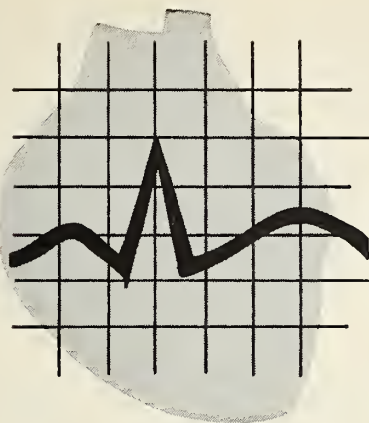
Case 2

"Mr. W. showed me his abdomen, across which was a mark having every appearance of a large rattlesnake. It had the regular spots of the snake, and the skin over it was actually scaly. The account he gave me of it was that "during the pregnancy of his mother, his father, to frighten her, threw at her the body of a rattlesnake he had just killed; it struck her across the belly and threw her into a fit, and when he was born he had this mark."

Dr. Woodward concluded: "It has become so fashionable to decry as "old fogys," those who have faith in the power of mental impressions of the mother over the foetus in utero, so as to cause deformity, that in some circles it is hardly safe to profess faith in such power. I have never been able to see anything so very unreasonable in the doctrine as some profess to think it."

Reference

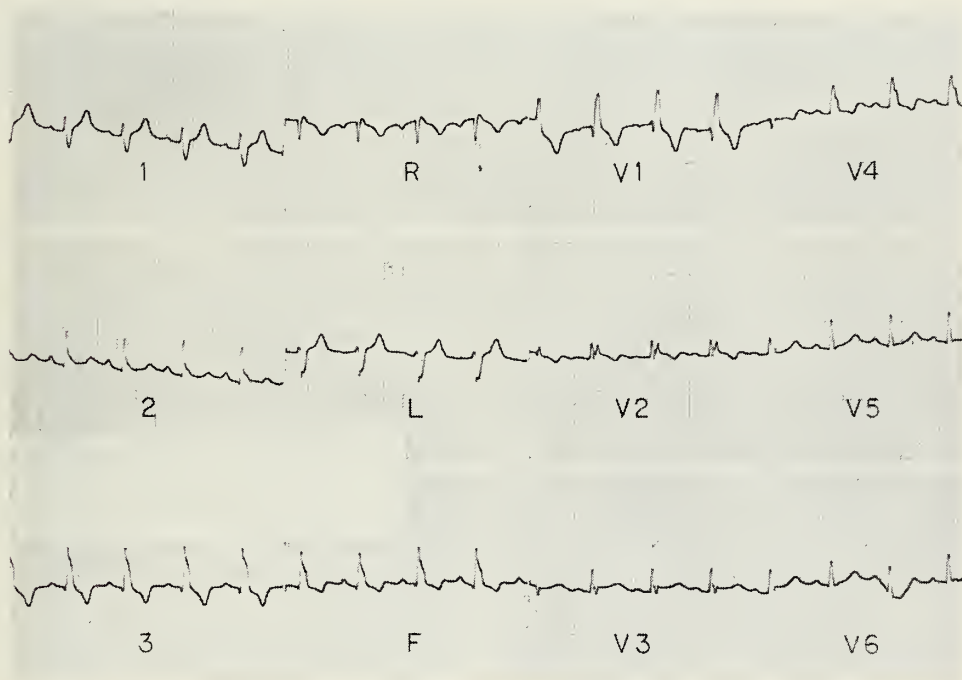
1. Woodward, B.: "Powerful mental impressions, a cause of deformity of the foetus in utero." *Med. Surg. Reporter* 3:26-7, 1859.



ekg of the month

JOHN R. TOBIN, JR., M.S., M.D., RIMGAUDAS NEMICKAS, M.D.,
PATRICK J. SCANLON, M.D., JOHN F. MORAN, M.S., M.D.,
SARAH JOHNSON, M.D., and ROLF M. GUNNAR, M.S., M.D./
Section of Cardiology, Department of Medicine,
Loyola University Stritch School of Medicine

A thirty-two year old lady presented for evaluation of exertional breathlessness and a heart murmur. She had a heart murmur since birth, but it never limited her activities. The exertional dyspnea had been worsening for the past two or three months. Her examination showed normal breath sounds. There was a loud, harsh, systolic crescendo, decrescendo murmur accompanied by a left sternal border lift, and a widely but normally split second heart sound. A chest X-ray showed cardiomegaly.



Questions:

1. The ECG which was taken shows:

- A. Complete right bundle branch block.
- B. Right axis deviation.
- C. Left posterior hemiblock.
- D. Right ventricular hypertrophy.
- E. All of the above.

2. Treatment of this patient might include:

- A. Digitalis.
- B. A temporary demand pacemaker.
- C. Cardiac catheterization and angiography to establish the exact cardiac diagnosis.
- D. All of the above.

(Continued on page 303)

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Original articles will be considered for publication with the understanding that they are contributed only to the *Illinois Medical Journal*. The *Journal* assumes no responsibility for the opinions and claims expressed in the articles contributed.

Manuscripts should be typed, double spaced, and submitted in duplicate, one original and one carbon. An article should not exceed **12 to 16 manuscript pages**, (including illustrations) and should be briefer if possible. Please enclose personal glossy photos of author or authors. Snapshots are not suitable for reproduction.

References should be numbered in order of appearance in the text and conform to the following style in the order given: name of author, title of article, name of periodical with volume, page, month (day of month if weekly) and year. The *Journal* does not assume responsibility for the accuracy of

references used with articles.

The first page should list the title, the name of the author(s), degrees and any institutional or other credits as well as the author's mailing address. The title should be as short as possible. Pages should be numbered consecutively. Tables are to be typed, numbered and accompanied by a brief descriptive title. Make drawings and charts in black ink. If photographs are submitted, send black and white glossies. Number illustrations consecutively and indicate their place in the text. Number, indicate the top and place the author's name on the back of each illustration.

Address manuscripts to:

T. R. Van Dellen, M.D., Editor
Illinois Medical Journal
55 E. Monroe St., Suite 3510
Chicago, Ill. 60603

Doctor — Your Opinion Please

In implementation of ISMS House of Delegates Resolution 75M-35, calling on ISMS to identify the doctor's views on when life begins, the Medical-Legal Council has studied the matter extensively. Upon report to the Board of Trustees, it was identified that varying points of view exist, which are equally defensible. The

Board indicated that the resolution called for a survey activity and that such should be included in the Journal.

You are requested to complete the following brief survey and return it to ISMS, Medical-Legal Council, 55 E. Monroe Street, Suite 3510, Chicago 60603.

As a practicing physician, what is your medical opinion as to when life begins? _____

Do you think there should be a difference between medical and legal definitions as to when life begins?

☐ YES

☐ NO

Signature (optional) _____

County Medical Society (please indicate): _____

The ISMS Council on Mental Health and Addiction is to address the question of confidentiality of patients, particularly in psychiatric care. This relates to proposed revisions of the Mental Health Code.

Certain concerns have been expressed and the opinion of others is solicited.

1. Should confidentiality vary with the type of therapist (psychologist, social worker, psychiatrist—licensed or unlicensed)?
2. Should the therapist be allowed to restrain the patient from giving up confidentiality when he judges the patient to be acting self-destructively?
3. Will patients be harmed by complete access to their own records?—Should two records be kept—one accessible to the

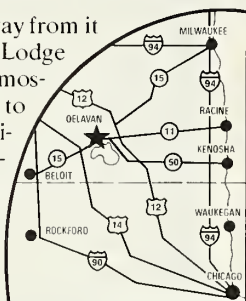
patient and one not?

4. Should a parent be allowed to control a minor's confidentiality?—To what age?
5. In group therapy should group members be entitled to the same confidentiality as individual treatment patients?—What about vis a vis other group members?
6. To what extent should third party payers, such as insurance companies and government agencies, have the right to demand identifying data and/or clinical data in the evaluation of treatment or to determine eligibility for payments?

If you have observations on any or all of these please send your comments to: Dr. Patrick Staunton, Chairman, ISMS Council on Mental Health, 55 E. Monroe St., Suite 3510, Chicago 60603.

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Director, Joint Commission on Accreditation of Hospitals.

"Alice Does It Again"—A titillating Audio-Visual presentation on professional accountability in the hospital.

Come to the

Fourth Annual Illinois Congress on Continuing Medical Education

Friday, April 9, 7:30 PM — Saturday, April 10, 5:00 PM
Oak Brook Hyatt House
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For more information, write or call:

Illinois Council on Continuing Medical Education
55 E. Monroe St., Suite 3510 Chicago, IL 60603
Telephone: (312) 236-6110

EKG

(Continued from page 299)

ANSWERS: 1. B,D 2. C

The ECG shows a QRS duration of 0.10 seconds and therefore cannot be called a complete right bundle branch block which would require 0.12 seconds. Right axis deviation at $+110^\circ$ approximately is present, as is right ventricular hypertrophy. The diagnosis of left posterior hemiblock is excluded largely by the physical examination which shows right ventricular hypertrophy, i.e. the left sternal border lift. The diagnosis of left posterior hemiblock should be considered in any ECG with right axis deviation and a $S_I Q_{III}$ pattern. However, right ventricular hypertrophy must be excluded (for a more elaborate discussion, see M.B. Rosenbaum *et. al. The Hemiblocks*. Tampa Tracings, 1970).

A pacemaker was not needed because there was no evidence of heart block. She also had no signs of heart failure. Cardiac catheterization showed severe pulmonic valvular stenosis and a small ventricular septal defect with a small 1.7 to 1 left to right shunt. The peak right ventricular systolic pressure was 90 mmHg. Open heart surgical repair of the pulmonic stenosis and the ventricular septal defect was recommended.

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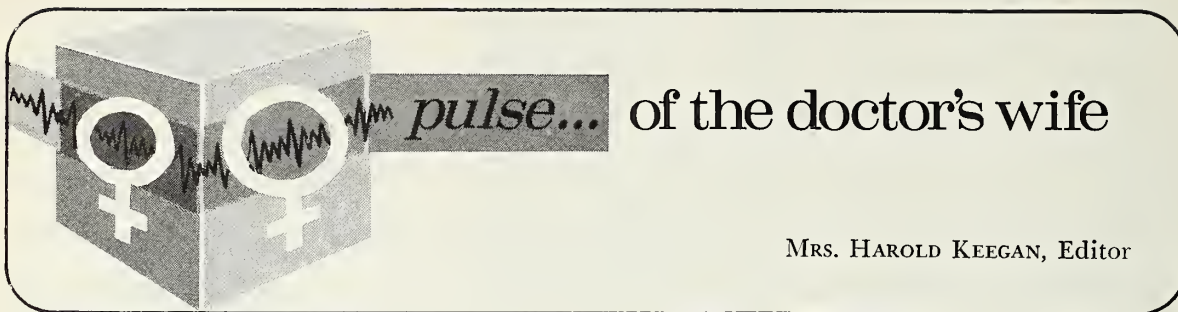
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Left: Chairman for Special Guests, Mrs. Edward Szewczyk (Betty).



Chairman of the Fashion Show & Vice Chr. of Hospitality for Convention, Mrs. Bruno Beinoris (Donna).



Left to right: State Hospitality Chairman, Mrs. E. F. Kortemeier (Lois); Mrs. Harold Keegan (Bonnie), Editor of Pulse and Convention Photographer; and Mrs. Eugene Vickery (Millie), State President and member of the Hospitality Committee.

Auxiliary to Sponsor Immunization Program

The ISMS Auxiliary will serve as a catalyst for Immunization Action Month during October. Mrs. Thomas Glatter, Immediate Past President, has been asked to chair a state-wide committee composed of representatives of several organizations interested in promoting better health care.

Officers and members of the Community Health Committee of the Illinois Hospital Association

recently met in Springfield with Auxiliary members Mrs. Stanley Burris and Mrs. Thomas Glatter. Mr. Zimmerman, Illinois Coordinator for Immunization of the Communicable Disease Center of Atlanta, Georgia, moderated a portion of the meeting and explained the immunization goals of the state and national program.

The percentage of preschool children vaccinat-

ed is very low. Recent breakouts of measles within the state document the necessity of a thorough educating program for parents.

Mrs. Glatter stated that she feels the immunization level is higher than the statistics indicate, but poor reporting methods distort the actual immunization statistics. A better method of reporting and obtaining immunization data will be one of the goals of the steering committee.

Mr. Zimmerman stated that our senior Citizens also are negligent in obtaining proper booster shots. He cited the case of a 72 year old woman who died of tetanus resulting from gardening. Again, this is an area of education that needs to be brought to all members of our communities. Auxiliaries planning fall programs should be aware of this community need.

Patches of Thoughts

. . . From Your President

Are you a collector? I collect many things and enjoy every one of them. Friends are my most prized collection! Over the years I've collected or accumulated quotes that carry a special message. I'd like to share a few with you.

"You never get a second chance to make a good first impression."

* * *

"The best way to forget your own problem is to help someone solve his."

* * *

"A leader has two important characteristics: first, he is going somewhere; second, he is able to persuade other people to go with him."

* * *

"The person who gets ahead is the one who does

more than is necessary—AND KEEPS ON DOING IT."

* * *

"There are few, if any jobs in which *ability* alone is sufficient. Needed also are *loyalty*, *sincerity*, *enthusiasm*, and *cooperation*."

* * *

"If you don't believe enough in your beliefs to fight for them—how can you honestly expect someone else to do it for you."

Do you have some special quotes you'd like to share? Please send them to me. I'd love to hear from you! . . . And please let me know what you and your auxiliary are doing, too.

Millie Vickery,
President, ISMS Auxiliary

▲ Milwaukee Psychiatric Hospital

{ Intensive, dynamic psychotherapy for adults and adolescents, individually planned activity therapy.

▲ Milwaukee Sanitarium

{ Geriatric program of superior care . . . custodial services for persons with chronic emotional illness.

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20th Annual Convention — AAMA Illinois Society

Springfield April 29-30, May 1-2, 1976

Thursday, April 29, 1976

8:00 P.M. Opening of Exhibits
8:30 P.M. Hospitality Parties

Dept. of Management Programs,
Sangamon State University

11:30 A.M. "Transplantation"

Friday, April 30, 1976

8:00 A.M. Council Meeting
10:00 A.M. House of Delegates
12:30 P.M. Reference Committees
3:15 P.M. House of Delegates Reconvenes
*8:00 P.M. Presidents Dinner

Alan G. Birtch, M.D., Chairman,
Div. of General Surgery & Transplantation,
Southern Illinois School of Medicine

*12:30 P.M. Awards Luncheon . . . Uniform Styleshow . . .

2:30 P.M. Mini Certification Test
(AAMA) Ina Yenerich, RT, CMA

Saturday, May 1, 1976

*8:00 A.M. Continental Breakfast
9:00 A.M. "Catching the Throw-Away Children" (Slide Presentation)
Jess Diamond, M.D., Pediatrician
9:45 A.M. "The Abused Child and Their Rights"
John Casey, Attorney at Law
10:30 A.M. Coffee Break
10:45 A.M. "How is Your Johari Window?"
Anna May Smith, Assoc. Prof. of Administration,

2:30 P.M. Escorted Tours to Lincoln's Home—Old State Capitol—Sangamon County Members, Hostesses

*7:00 P.M. Installation Banquet
10:00 P.M. Presidents Reception

Sunday, May 2, 1976

*9:00 A.M. Breakfast (Farewell)
Laura Lockhart, AAMA President
11:00 A.M. Council

*Meals included in general registration fee.

Registration Form

Please mail this form with registration fee to:

Convention Registration Chairman
Mrs. Lanore Krotz
2004 North 7th Street
Springfield, Illinois 62702

Make checks payable to: **Illinois Society Convention Fund**

Hotel reservations must be received by Forum XXX at least 30 days prior to convention.

Name(s) _____

Address(s) _____

Chapter _____ Member _____ Non-Member _____

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Officer _____ Advisor _____ Is this your first Illinois Society Convention? Yes _____ No _____

General Registration Fee

Member \$40.00

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Saturday—Educational Programs (Only)

\$20.00

Installation Banquet (Only)

\$15.00

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\$ 2.00

One time . . . 2:30 p.m.

Total Amount Enclosed

\$ _____

Registration Deadline: APRIL 15, 1976

Late Registration Fee \$5.00

BLUE SHIELD REPORT



FOR *Illinois Physicians*

Spring Series of Workshops Continue

The Spring series of Blue Shield-sponsored day-time workshops for medical assistants in central and downstate counties of Illinois began April 7 in Mt. Vernon and will continue through June 17.

The workshops are intended to inform medical assistants in Blue Shield administrative, claims and payment procedures and advise them of changes in Blue Shield benefits and contracts.

The schedule includes a total of 38 morning and afternoon meetings. All medical assistants will be invited to attend one of the workshop-programs and complimentary luncheon.

Registration for the morning programs begins at 9:30 A.M. and the meetings will continue until noon. Afternoon programs will begin at 1:30 P.M. and end at 4:00 P.M. Luncheon will be served to all participants attending either morning or afternoon program. Members of our Professional Relations Department will conduct the workshops. They will be organized into groups of approximately 25; special attention will be given to newly-employed medical assistants with less than a year's experience. There will be ample time for questions and discussion.

Letters of invitation are being sent to physicians' offices with the reservation forms. For additional information, please write or phone Mrs. Loretta O'Donnell, Professional Relations Department, Blue Shield Plan, 233 North Michigan Avenue, Chicago, Illinois 60601. Telephone (312) 661-2964.

The following workshops are also scheduled:

Wed., April 21	Sheraton Inn	Mattoon
Thurs., April 22	Ramada Inn	Effingham
Wed., April 28	Ramada Inn	Quincy
Thurs., April 29	Holiday Inn	Macomb
Wed., May 5	Holiday Inn	Decatur
Wed., May 12	Henrici's	Rockford
Thurs., May 13	Henrici's	Rockford
Thurs., May 20	Forum 30	Springfield
Thurs., May 27	Ramada Inn	Champaign
Wed., June 2	Ramada Inn	Bloomington
Thurs., June 3	Ramada Inn	Peoria
Wed., June 9	Sheraton Inn	Rock Island
Thurs., June 10	Sheraton Inn	Galesburg
Wed., June 16	Holiday Inn	Kankakee
Thurs., June 17	Ramada Inn	Ottawa

Concurrent Medical Care

When a patient is admitted to the hospital primarily for surgical or obstetrical care, additional benefits for concurrent medical care rendered by a physician other than the surgeon or obstetrician would be paid under most Blue Shield certificates provided: (1) there are *unusual circumstances* and (2) *specialized medical care . . . is essential to and distinct from the surgical or obstetrical care*. Allowances vary according to the type of Blue Shield certificate held by the member.

Some examples of eligible claims for concurrent medical care are as follows:

(1) The patient is admitted as a medical patient and treated medically for a period before being transferred to the surgical or obstetrical service. In such cases, the physician rendering medical care should bill Blue Shield for his services to the date of transfer;

(2) The patient is primarily a medical patient, and the surgery performed is a minor procedure or

diagnostic in nature. In these cases, the physician rendering medical care should bill Blue Shield for the entire period of hospitalization;

(3) The patient develops a post-operative condition requiring specialized medical services. In these cases, the physician rendering medical care should bill Blue Shield from the date he enters the case to the date of completion of his hospital service;

(4) The patient has a medical condition requiring close supervision both pre and post-operatively. In this case, the physician should bill Blue Shield for the entire period of hospitalization and describe in detail the condition of the patient.

Admission date, discharge date, diagnosis and the number of in-hospital daily visits made must be reported before claims can be paid. To avoid returning reports for additional information which delay payments, the question on the Blue Shield's Physician's Service Report must be completed, e.g., "Was surgery also performed," and "If so, by whom?", even if all services performed were medical.

In most Blue Shield certificates payment for in-hospital medical care is limited to one visit per day.

ASK BLUE SHIELD . . . ABOUT MEDICARE

Adjustment to Economic Index

Amendments to Public Law 94-182, enacted December 31, 1975, contain a provision that prevailing charges for fiscal year 1976 (July 1, 1975 to June 30, 1976) may not be set below fiscal year 1975 levels, and adjustments are to be made in underpaid Part B Medicare claims as a result of the difference in charge levels for the fiscal years.

While the change actually affects very few procedures, Illinois Blue Shield, Part B Medicare carrier for Cook County, will be taking the following actions to comply:

(1) Prevailing charges which have been reduced to the economic index limitation, will be raised to fiscal year 1975 levels; and

(2) Medicare Part B claims that were processed between July of 1975 and the time of this increase are now being adjusted to the amount allowed by the 1975 fiscal year levels and checks for the differences will be released soon.

In the process of adjusting the underpaid claims, Medicare has been instructed by the Department of Health, Education and Welfare to reprocess only those with a reasonable charge difference of more than \$1.25 for services that are reimbursable at 80% and \$1.00 for services reimbursable at 100%. No check will be written for an amount less than \$1.00. An explanation of Medicare benefits will be included with each check and will state the following: "Because of recent legislation, this additional amount is being approved for services previously approved by Medicare."

Services of Physicians' Assistants

No provision under Medicare authorizes payment for services of physicians' assistants. The only basis for covering their services under Part B would be those furnished "incident to" a physician's professional service.

One of the requirements that must be met is that services are of the kind commonly furnished in physicians' offices. This limits coverage to services of nurses and other assistants necessary to the physician's in-office service. Thus, the performance by a physician's assistant of services which traditionally have been reserved to physicians cannot be billed, even though all the other related requirements are met.

The physician might render a service which is covered even though payment could not be made

for the service rendered by the assistant. For example, an office visit charge by the physician that included non-covered services by a physician's assistant, may be reimbursed if the physician himself sees the patient and makes an independent evaluation of the patient's condition and course of treatment initiated or recommended by the physician's assistant.

Billing for Eye Refractions

Refractive procedures of the eye are not reimbursable by the Medicare program. When the procedure is performed, it should be itemized and charged for separately.

If a separate charge is not shown when billing for a complete eye examination with refraction, the Part B Medicare carrier is obliged to reduce the charge billed by 20%. If a follow-up visit includes refractive services and the charge is not shown separately, the carrier will reduce the charge billed by 33%.

When a complete eye examination or a follow-up visit does not include a refraction, this should be stated on the bill or claim so that the Medicare carrier will not reduce the charge. In the absence of information to the contrary, the presumption of the carrier generally is that the charge for an eye refraction was included in the examination, reducing the allowable charge accordingly.

Consultations for In-Hospital Patients

There are two levels of consultations furnished in-hospital Medicare patients: a limited type and a comprehensive consultation.

A limited consultation is an examination and/or evaluation of a single organ system which does not require a comprehensive history.

A comprehensive consultation includes a history and examination; an extensive review of medical records; compilation and assessment of diagnostic material; and the preparation of a report for the attending physician.

When billing the Part B Medicare carrier for consultations always indicate which type of consultation was performed. If a comprehensive consultation was furnished, the description of services should include a comprehensive history and physical examination, with a written report for the patient's medical record. Without a clear description, the Medicare carrier generally assumes it was the limited type of consultation that was provided.



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OF HYPERTENSION***

Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

*** Warning**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*** Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome, steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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Clinics for Crippled Children Listed for May

Twenty-nine clinics for Illinois' physically handicapped children have been scheduled for May by the University of Illinois, Division of Services for Crippled Children. The Division will count twenty general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical social and nursing services. There will be seven special clinics for children with cardiac conditions, and two for children with cerebral palsy. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- May 5 Hinsdale, Hinsdale Sanitarium
- May 6 Sterling, Community General Hospital
- May 6 Effingham, St. Anthony Memorial Hospital
- May 6 Pittsfield, Illini Community Hospital
- May 6 Lake County Cardiac, Victory Memorial Hospital
- May 10 Peoria Cardiac, St. Francis Children's Hospital
- May 11 Peoria, St. Francis Children's Hospital
- May 11 E. St. Louis, Christian Welfare Hospital
- May 12 Mt. Vernon, Good Samaritan Hospital
- May 12 Joliet, St. Joseph's Hospital
- May 12 Champaign-Urbana, McKinley Hospital
- May 13 Springfield, St. John's Hospital
- May 14 Chicago Heights Cardiac, St. James Hospital
- May 14 Division Cardiac-U. of I. Hospital, Center for Handicapped Children
- May 18 Rock Island, Moline Public Hospital
- May 18 Decatur, Decatur Memorial Hospital
- May 19 Centralia, St. Mary's Hospital
- May 19 Springfield Pediatric Neurology, Diocesan Center
- May 19 Anna, Union County Hospital
- May 19 Evergreen Park, Little Company of Mary Hospital
- May 20 Macomb, McDonough District Hospital
- May 20 Rockford, Rockford Memorial Hospital
- May 20 Elmhurst Cardiac, Memorial Hospital
- May 24 Peoria Cardiac, St. Francis Children's Hospital
- May 25 Peoria, St. Francis Children's Hospital
- May 26 Rock Island Cerebral Palsy, Foundation for Crippled Children and Adults
- May 26 Chicago Heights, St. James Hospital
- May 26 Elgin, Sherman Hospital
- May 28 Chicago Heights Cardiac, St. James Hospital

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization and after-care for children with crippling conditions or who are suffering from conditions that may lead to crippling. In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse association, local social and welfare agencies, local chapters of the National Foundation and other interested groups. In all cases the work of the Division is intended to extend and supplement, not supplant activities of other agencies, either public or private, state or local, carried on in behalf of crippled children.

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Before prescribing, please consult complete product information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium® (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacologic effects of agents, particularly potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are avoidable in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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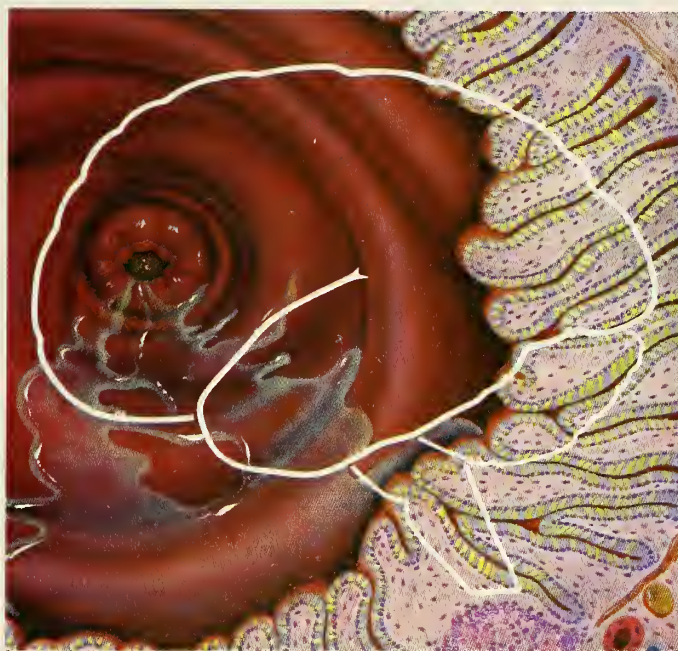
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* This drug has been evaluated as possibly effective for this indication. Please see preceding page for brief summary of product information.

Editorials



Our Bicentennial—Promotion

This is the Bicentennial of the United States and it has been promoted so vigorously and with such commercialism that it reeks of exploitation. Yet we still have nine months to go. Christmas has become so commercialized that most people don't really know why we celebrate Christmas. The same could happen to the Bicentennial, in that many may not associate the commercial events with our country's 200th birthday.

It is hard to beat the promotional talent of Madison Avenue and the wealth in Washington. If our mail is an indication, we can attest to the commercialism. There are commemorative stamps and cancellation post marks. Gold and silver coins are being promoted as collectors items and family heirlooms. The so called "dime stores" are loaded with special Bicentennial mugs, playing cards with historic flags, and patriotic red, white and blue party items. The expensive stores have special paper clips, paper weights, key rings, money clips, commemorative ties, cuff links, collectors colonial reproductions on glass, maps (from 1776 on) and pin sets. Antique replicas of genuine papers and archives also are available.

One creative sales organization has a catalog on Bicentennial paraphernalia, sale motivators and advertising specialties. And our government has planned thousands of events and projects for our 200th anniversary to take place in cities and

towns across the country. For \$5.70 it will send you a comprehensive calendar of Bicentennial events.

According to "Travel Trade," the travel industry is the first to complain about those in the industry who are trying to make a killing in 1976. They have given the label Bicentennial Bastards to travel agencies, tour operators, motor coach brokers, hotels, and other travel related organizations who attempt to overcharge the public under the guise that anything goes in 1976.

The medical profession could regard the Bicentennial with mixed emotions. They have made more progress in almost every field of medicine during the past two centuries than in all the centuries since the beginning of man. Most of it was done in this country and under the private enterprise system.

But it is difficult for the American physician to hold his head high, with his chest out, as a gesture of being proud of his profession's accomplishments. It's as though the sky were caving in on him, because, along with increasing adverse publicity and claims of malpractice, is the threat that Congress just might make the Bicentennial more memorable by socializing the medical profession.

T. R. Van Dellen, M.D.
Editor

WHY YOUR EMPLOYEE BENEFIT PLAN MAY NEED A CHECKUP

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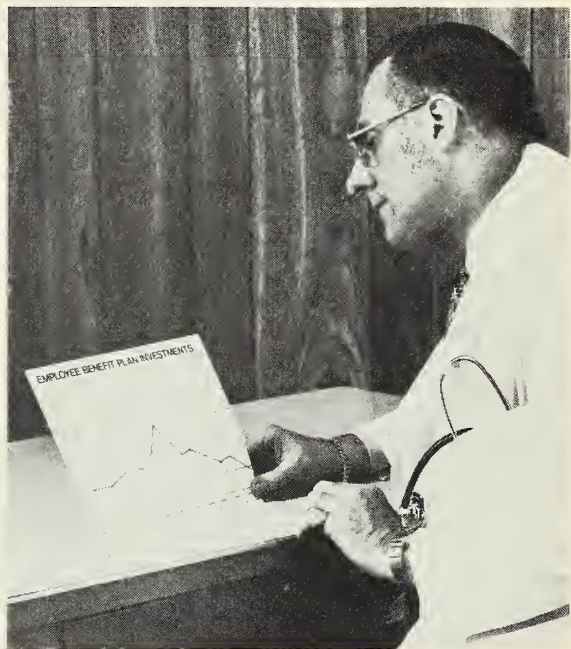
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How Do You Know You Need to Know?

When do you know that you need to know? When that rare patient presents with pheochromocytoma, or ainhum, or periarteritis nodosa? Or when you find that the treatment you have been using for years just isn't doing the job as rapidly as a treatment used by a colleague? Or in leafing through a medical journal you see a new term like prostaglandin or cyclic AMP?

I suppose all of us have had at least one or all of these experiences, but how can we find out what we need to know?

We must not assume that we are "keeping up" simply because we read and go to meetings. It takes a little more effort for each of us to look at our practice and find out where the deficiencies lie. So, first comes need-identification.

There are a number of ways of going about determining one's needs. For specialists, almost all specialty societies are creating self-assessment exams. They are usually multiple-choice exams (National Board style) with a few PMP's (Patient Management Problems). The latter are fun to do because they provide an opportunity to work through a case and to choose various op-

tions as one proceeds. These exams also usually have a bibliography accompanying them to provide instant resource for lacunae in knowledge discovered while taking the exam. Some of these have been criticized because they are made by academicians and often many of the questions are too esoteric—not clinical enough.

Another and probably better way is to look at what you do in your daily practice. The Illinois Council on Continuing Medical Education has created a method for you to do just that. *Your Personal Learning Plan*, available free to all ISMS members, will permit you to monitor your practice and determine where your deficits occur. By finding out what you don't know, you can go to the books or courses, or convince your hospital education committee to put on a program in that area.

Sometimes we don't know what we need to know because we assume that we are doing fine. But only by monitoring ourselves do we become better physicians.

Harvey Strassman, M.D.
Professor of Psychiatry, Chicago Medical School

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***Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
 2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
 3. Threatened abortion.
- Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

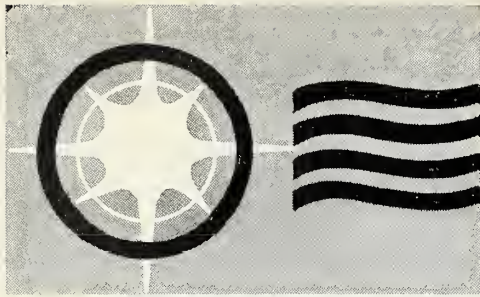
Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500, 1000, 5000 and Unit Dose.

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membership forum

Dear Dr. Van Dellen:

I have two comments I would like to make on the article in the October, 1974, Surgical Grand Rounds regarding stroke in a 19 year old man. (Sorry I am so late in commenting).

First, I would wonder at least partially, with tongue in cheek, why someone did not inquire if this young man was taking the birth control pill and surprised that the FDA or some congressional committee did not call in some aspect of the problem. More seriously, Dr. DeBoer in his summary quotes Dr. Stutville as saying that one should "have the patient talk and that will tell you what the diagnosis is." I would hope that many of my colleagues would recognize this as a somewhat older quotation from Sir William Osler, "listen to the patient; he is telling you the diagnosis." No doubt, many earlier excellent teachers, perhaps not so renowned, have used the same admonition. Nevertheless, the admonition remains as fresh and pertinent today as it ever has, despite all the fancy diagnostic tools that science can devise and congress can force upon us.

Respectfully yours,
Donald L. Grieme, M.D.

Dear Dr. Van Dellen:

Dr. J. M. Ingalls' President's Page article entitled, "It's Been a Long Day," reflects the medicolegal dilemma that physicians face currently in the United States. However, I sense that the underlying meaning of the malpractice question was missed. Is the patient-consumer really saying that they personally dislike or distrust the physician? Are they actually insisting that they have every possible assist from modern-day medical technology? Are they complaining about the concerned physician who cares for them in the way this article depicts? No, our culture is not voting against the physician as a person, and they are not voting against the type of concerned care that Dr. Ingalls describes. The consumer is rather voting against the "health care system" which, at times, functions mechanically and without genuine concerned care. I see the threat generated by patients' loss of identity or the feeling of a physician's not caring about them as the real risk. I would interpret the current legal and con-

sumer advocate voices as questioning the manner in which we deliver medical care rather than the content of the medical care. This, at times, is difficult to see, since the content of the issues being raised is technical in nature. Again, is the patient not asking to be recognized and cared for as an individual?

Sincerely,
William Coyer, M.D.
Director, Newborn Medicine
and Pediatric Intensive Care

Dear Editor:

Seeing children in my allergy practice and with the bicentennial year in the back of my mind, I thought this syndrome appropriate: "Patriotic Eyes"—red, white, and blue. "Patriotic Eyes" are readily identified by the red conjunctiva, white sclera and blue circles under the eyes.

This represents a common enough allergic condition, "allergic shiners." The discussion of this syndrome presented in my book *PARENTS' GUIDE TO ALLERGY IN CHILDREN* (Doubleday) follows: "dark puffy bags beneath the child's eyes are caused by the swelling reaction to an allergen, which obstructs drainage of the area. . . . These dark circles don't develop overnight, for it takes about a year for this sign of allergic rhinitis to make its appearance. They are usually more noticeable in the morning and oddly enough during the winter." Allergic shiners are also mentioned in my book *COPING WITH FOOD ALLERGY* (Quadrangle).

The above information may be of interest to your readers, some of whom may be proud parents of patriotic offspring.

Sincerely,
Claude A. Frazier, M.D.

Dear Dr. Reisch,

I was very pleased and flattered to receive your letter of February 3, telling me of my Emeritus Membership status in ISMS and the special advantages which it affords.

My long membership in ISMS meant a great deal to me over the years in which I served both actively and fruitfully.

Kindest personal regards,
Julius Ginsberg, M.D.

Obituaries

***Bernstein, Julius**, Chicago, has passed away at the age of 84. Dr. Bernstein graduated from Chicago College of Medicine in 1916. He had practiced medicine for more than 50 years.

***Dale, Maurice**, Chicago, died February 13 at the age of 74. Dr. Dale graduated from Northwestern University in 1928.

***Goldt, Henry**, Chicago, died February 19 at the age of 67. He graduated from University of Illinois in 1938.

***Hendricks, William**, Chicago, died February 21 at the age of 86. He graduated from University of Pennsylvania in 1918. Dr. Hendricks had practiced medicine for more than 50 years.

***Hull, Robert**, Barrington, died March 8 at the age of 54. Dr. Hull graduated from University of Kansas in 1948.

***Johnson, Iven**, Chicago, died February 17 at the age of 86. He graduated from Stritch School of Medicine in 1918. Dr. Johnson had practiced medicine for more than 50 years.

***Knaisel, Stephen**, Glenview, died February 10 at the age of 75. Dr. Knaisel graduated from Northwestern University in 1931.

***Lawler, Paul**, Chicago, died February 9 at the age of 77. He graduated from Northwestern University in 1925. Dr. Lawler was a founding member of the American College of Obstetrics and Gynecologists.

Levine, Harold, Oak Park, died February 21 at the age of 45. Dr. Levine was chief of Pulmonary medicine at Hines VA Hospital.

***Merriman, John**, Evanston, died February 12 at the age of 87. He graduated from Rush Medical College in 1919. Dr. Merriman had practiced medicine for more than 50 years.

***Nolan, William**, Colorado, has passed away at the age of 78. Dr. Nolan graduated from Marquette University, Wisconsin in 1938.

***Riordan, Howard**, Oak Park, died February 22 at the age of 81. He graduated from Stritch School of Medicine in 1919. Dr. Riordan had practiced medicine for over 50 years.

***Shuger, Michael**, Chicago, died February 10 at the age of 75. Dr. Shuger graduated from University of Illinois in 1933.

***Thomas, Joseph**, Michigan, has passed away. Dr. Thomas graduated from University of Illinois in 1925.

***Weidner, Morris**, Dolton, died February 14 at the age of 72. He graduated from University of Illinois in 1929. Dr. Weidner was medical director of Wyman-Gordon Co. He was also instrumental in starting the Ingalls blood bank in 1950.

***Whitley, William R.**, Evanston, died March 10, at the age of 85. He graduated from Northwestern University Medical School in 1915. Dr. Whitley had a private practice in pediatrics for 34 years; was a member of the staff at Children's Memorial Hospital, Chicago; on the teaching staff of Northwestern University Medical School; and Medical Director of the Evanston Infant Welfare Society, till he suffered a severe stroke in 1953. Since that time Dr. Whitley's avocations had been medicine and scriptures. He is survived by two daughters and a son.

*Indicates ISMS member

*Indicates ISMS member and member of the Fifty Year Club

Answers to Common Questions About Continuing Medical Education and Accreditation

What is "CME"?

CME—"continuing medical education"—refers to *organized* learning activities for physicians. Continued learning is a part of the professional life of every physician. Experience in practice, ordinary relations with fellow practitioners (including formal and informal consultations), reading in professional journals and the literature, attendance at society meetings or hospital staff meetings—plus the meditation on thorny problems that is natural to the highly-trained, sophisticated professional—all lead to continued assimilation of knowledge.

In recent years, the rapid increase of knowledge in medicine has made it dramatically clear that the physician also needs *formal* continuing medical education for three principal reasons:

1. It is an *efficient* means for systematic coverage of new materials and ideas in relatively brief time-periods so the busy clinician can use effectively the limited time available for continuing learning.

2. It encourages *systematic* attention to major needs as revealed by various analyses: surveys of community needs, shifts in hospital admission patterns, emergence of new technics or knowledge that permit improved practice, physician self-assessment techniques.

3. It permits *maintenance of a permanent record* of physician self-improvement efforts, and thus provides the basis for meeting formal requirements or other professional purposes (e.g., the AMA "Physician's Recognition Award").

Excerpted from "The Illinois Accreditation Program for Continuing Medical Education." If your hospital or medical society is not accredited for CME, you'll want the entire 16-page booklet. For your copy, write "Accreditation booklet" on your prescription form and mail to: Illinois Council on Continuing Medical Education, 55 E. Monroe St., Suite 3510, Chicago IL 60603 (telephone 312-236-6110).

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U.S. AIR FORCE MEDICAL OFFICER RECRUITMENT

Mayan Medical Tour

BY WEI-PING LOH, M.D., Ph.D./GARY

A Mayan Medical Tour was successfully sponsored and conducted by the Illinois State Medical Society from January 19-28, 1976. More than 100 physicians and their families participated in the tour. The group traveled by a chartered jet and spent four days each in El Salvador and Guatemala, Central America. Dr. Wei-Ping Loh, Clinical Professor of Pathology at the Chicago Medical School, served as their traveling medical seminar chairman. The medical program including lectures and physicians' forum and hospital visits were thoroughly enjoyed by the participants.

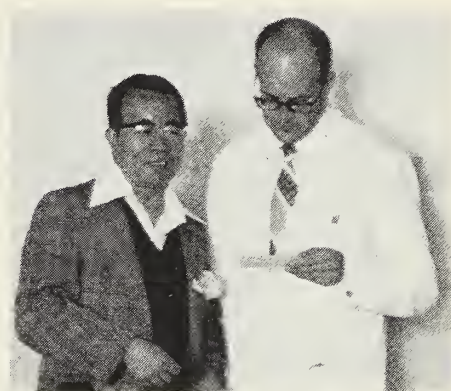


Figure 1. Dr. MacDonald Kanter, right and Dr. Loh.

Medical Program

January 19—Physicians' Forum: San Salvador

Speaker	Subject
Dr. Alfred H. Rosenblum	"Herpes Zoster, Newer Concepts, Identification with Varicella and other Viruses"
Dr. Norman R. Cooperman	"Prophylactic Antibiotics in Gynecological Surgery"
Dr. George Lagorio	"Medical Unionism as it Pertains to Private Practicing Physicians"
Dr. Theodore Balsam	"Starch Peritonitis"

January 22, San Salvador:

Dr. Enrique Hernandez-Perez, Professor of Dermatology, University of El Salvador	"Leprosy and Other 'Exotic' Diseases"
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January 23, San Salvador:

Dr. Juan Jose Fernandez, Professor of Medicine, University of El Salvador	"Epidemic Dysentery Caused by Shigella A-1 in El Salvador"
Professor Fernandez and staff	Ward Rounds and Hospital Visits at Rosales Hospital.

January 23, Guatemala City:

Dr. Cesar Leonel Gonzalez Camargo, Assistant Professor in Infectious Diseases, San Carlos University	"Sporotrichosis in Guatemala"
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January 27, Guatemala City:

Dr. Rodolfo MacDonald Kanter, Professor of Surgery, University of San Carlos Medical School	"History of Medicine in Guatemala and Statistics of Annual Services at Roosevelt Hospital"
Dr. MacDonald Kanter and staff	Ward Rounds and Hospital Visits.

IN GONORRHEA INJECTION **Wycillin®** (STERILE PENICILLIN G PROCAINE SUSPENSION) WYETH

In **Gonorrhea**, the drug regimen of choice is aqueous penicillin G procaine. In uncomplicated cases, administration of 4.8 million units together with 1 gram oral probenecid, given just before injection, is recommended.

Indications: In treatment of moderately severe infections due to penicillin G-sensitive microorganisms sensitive to the low and persistent serum levels common to this particular dosage form. Therapy should be guided by bacteriological studies (including sensitivity tests) and by clinical response.

NOTE: When high sustained serum levels are required use aqueous penicillin G, IM or IV.

The following infection will usually respond to adequate dosages of intramuscular penicillin G procaine—*N. gonorrhoeae*: acute and chronic (without bacteremia).

For deep intramuscular injection only.

Contraindication: Previous hypersensitivity reaction to any penicillin.

Warnings: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen and intravenous corticosteroids should also be administered as indicated.

Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well-documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Immediate toxic reactions to procaine may occur in some individuals, particularly when a large single dose is administered in the treatment of gonorrhea (4.8 million units). These reactions may be manifested by mental disturbances, including anxiety, confusion, agitation, depression, weakness, seizures, hallucinations, combativeness, and expressed "fear of impending death". The reactions noted in carefully controlled studies occurred in approximately one in 500 patients treated for gonorrhea. Reactions are transient, lasting from 15-30 minutes.

Precautions: Use cautiously in individuals with histories of significant allergies and/or asthma.

Carefully avoid intravenous or intraarterial use, or injection into or near major peripheral nerves or blood vessels, since such injections may produce neurovascular damage.

A small percentage of patients are sensitive to procaine. If there is a history of sensitivity, make the usual test: Inject intradermally 0.1 ml. of a 1 to 2 percent procaine solution. Development of an erythema, wheal, flare or eruption indicates procaine

sensitivity. Sensitivity should be treated by the usual methods, including barbiturates, and procaine penicillin preparations should not be used. Antihistaminics appear beneficial in treatment of procaine reactions.

The use of antibiotics may result in overgrowth of nonsusceptible organisms. Constant observation of the patient is essential. If new infections due to bacteria or fungi appear during therapy, discontinue penicillin and take appropriate measures.

If allergic reaction occurs, withdraw penicillin unless in the opinion of the physician, the condition being treated is life threatening and amenable only to penicillin therapy.

When treating gonococcal infections with suspected primary or secondary syphilis, perform proper diagnostic procedures, including darkfield examinations. In all cases in which concomitant syphilis is suspected, perform monthly serological tests for at least four months.

Adverse Reactions: (Penicillin has significant index of sensitization) skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported. (See "Warnings".)

As with other antisyphilitics, Jarisch-Herxheimer reaction has been reported.

Procaine toxicity manifestations have been reported (see "Warnings"). Procaine hypersensitivity reactions have not been reported with this drug.

Dosage and Administration: Administer only by deep intramuscular injection, in upper outer quadrant of buttock. In infants and small children, midlateral aspect of thigh may be preferable. When doses are repeated, vary injection site. Before injection, aspirate to be sure needle bevel is not in blood vessel. If blood appears, remove needle and inject in another site.

Although some isolates of *Neisseria gonorrhoeae* have decreased susceptibility to penicillin, this resistance is relative, not absolute, and penicillin in large doses remains the drug of choice. Physicians are cautioned not to use less than recommended doses.

Gonorrheal infections (uncomplicated)—Men or Women: 4.8 million units intramuscularly divided into at least two doses and injected at different sites at one visit, together with 1 gram of oral probenecid, given just before injection.

NOTE: Treatment of severe complications of gonorrhea should be individualized using large amounts of short-acting penicillin. Gonorrheal endocarditis should be treated intensively with aqueous penicillin G. Prophylactic or epidemiologic treatment for gonorrhea (male and female) is accomplished with same treatment schedules as for uncomplicated gonorrhea.

Retreatment: The National Center for Disease Control, Venereal Disease Branch, U.S. Dept. H.E.W. recommends:

Test cure procedures at approximately 7-14 days after therapy. In the male, a gram-stained smear is adequate if positive; otherwise, a culture specimen should be obtained from the anterior urethra. In the female, culture specimens should be obtained from both the endocervical and anal canal sites.

Retreatment in males is indicated if urethral discharge persists 3 or more days following initial therapy and smear or culture remains positive. Follow-up treatment consists of 4.8 million units aqueous penicillin G procaine, I.M. divided in 2 injection sites at single visit.

In uncomplicated gonorrhea in the female, retreatment is indicated if follow-up cervical or rectal cultures remain positive for *N. gonorrhoeae*. Follow-up treatment consists of 4.8 million units aqueous penicillin G procaine daily on 2 successive days.

Syphilis: all gonorrhea patients should have a serologic test for syphilis at the time of diagnosis. Patients with gonorrhea who also have syphilis should be given additional treatment appropriate to the stage of syphilis.

Composition: Each disposable syringe 2,400,000 units (4-ml. size) contains penicillin G procaine in a stabilized aqueous suspension with sodium citrate buffer, and as w/v approximately 0.5% lecithin, 0.5% carboxymethylcellulose, 0.5% povidone, 0.1% methylparaben, and 0.01% propylparaben. The multiple-dose 10-ml. vial contains per ml. 300,000 units penicillin G procaine in a stabilized aqueous suspension with sodium citrate buffer and approximately 7 mg. lecithin, 2 mg. carboxymethylcellulose, 3 mg. povidone, 0.5 mg. sorbitan monopalmitate, 0.5 mg. polyoxyethylene sorbitan monopalmitate, 1.2 mg. methylparaben, and 0.14 mg. propylparaben.

Five are graduating with honors. How many with VD?

On the average, you can figure the incidence of VD among teenagers at about 900 per 100,000 population*. And growing.

Among those in the 20-24 age-group, the incidence is even higher. And it, too, is growing.

In the long run, a populace educated to the risks and prevention of VD is probably the best answer to the problem. Meanwhile, though, adequate doses of the recommended types of penicillin remain a formidable weapon.



I M J

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Carcinoid Tumor of the External Anus

By RALPH C. GREENE, M.D. AND EARL E. SUCKOW, M.D./DES PLAINES

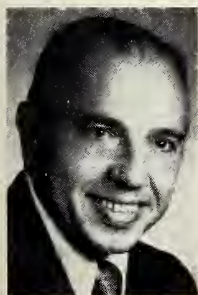
Carcinoid tumors arising under the squamous epithelial portion of the external anus have not been described in the literature, as have melanomata, extramammary Paget's disease and junctional (cloacogenic) cancer.

One case has been reported where the patient developed shortness of breath and reddening of the face after only a sip of alcoholic liquor. Examination revealed a large, knobby liver and visible peristaltic waves all over the abdomen. A 1 cm. in diameter nodule was discovered in the anal canal, presumably from mucous membrane. This was revealed to be a carcinoid tumor with metastasis to the liver.

Carcinoid tumors occur in any portion of the large bowel. Those located in the colon tend to be large, extend deeply through the wall of the

bowel, and involve the regional lymph nodes. They often have a light yellow color. In the rectum, they are often located in the anterior or lateral wall. They are spherical, and ulceration is usually lacking. Of 147 cases of rectal carcinoid, examined by Caldarola et al,³ 105 were less than 0.5 cm. in diameter. Only three were associated with lymph node metastases, and all of these were larger than 2 cm. in diameter. Multicentricity, a common finding in small bowel carcinoid tumors, is not a feature of rectal tumors. Only one case was associated with the carcinoid syndrome. Microscopically, invasion of the stroma by small cells growing in a ribbon or festoon fashion is seen. Argentaffin and argyrophil reactions are usually negative, although exceptions occur. Tumors smaller than 2 cm. in diameter are best treated by local excision, whereas larger neoplasms (which are extremely rare) need a radical operation in view of their propensity for lymph node involvement. Rare combinations of carcinoid tumor and mucous-secreting adenocarcinoma have been described.

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EARL E. SUCKOW, M.D., is Associate Pathologist at Holy Family Hospital, Des Plaines, and Assistant Professor at Northwestern University Medical Dental School, Department of Pathology. Also, Dr. Suckow is Secretary of the Irving Park Branch of CMS, a delegate to ISMS, and a member of the ISMS Committee on Laboratory Services.

Report of Case

A white female, 51-year-old, was admitted to Holy Family Hospital because of hemorrhoids which had gradually enlarged over the past six years with marked pain and discomfort. Sigmoidoscopy revealed no abnormalities except for an extremely severe anterior "fistula in ano" and internal and external hemorrhoids. There were

no additional positive physical findings.

A fistulectomy and radical hemorrhoidectomy was performed. The fistulous tract was injected with methylene blue and a metal probe inserted until it exited through the primary opening of the most anterior portion of the anal canal at the 6 o'clock position. All the tissue overlying this was incised. The tract passed between the internal and external sphincter ani muscles. The hemorrhoids in the immediate vicinity from the 4 o'clock to the 8 o'clock position were completely trimmed and the mucous membrane was sutured to the superior border of the external sphincter ani muscles.

Pathological Findings

Following this, the hemorrhoids were removed from the 1 o'clock to the 3 o'clock position. When received in the Pathologic Anatomy Laboratory, the fistula, having been incised, was not identified as such, but the specimen consisted of approximately 20 ml. of hemorrhoidal tissue. Some of the fragments contained on their squamous epithelial surfaces, polypoid excrescences, gray-yellow, up to 0.6 cm. in diameter, all of which were sectioned. There were large thrombosed venous spaces under the anal epidermis and rectal mucosa. On microscopic examination the tissue surface was partly stratified squamous epithelium and partly colonic mucosa. Within many of the fragments there were dilated vascular channels and extravasation of erythrocytes. The small polypoid fragments had a squamous epithelial surface, beneath which in the underlying stroma there were small glands, some compressed and other arranged in "ribbon-like festoons" composed of cells having prominent, relatively uniform round nuclei and a granular cytoplasm with occasional secretory vacuoles. These were set within an edematous and partially fibrous stroma infiltrated with lymphocytes.

In the tip of one of the polypoid excrescences, where glands were formed, the overlying epidermis was intact, but the glands were slightly larger and appeared to be distended by amorphous granular material and other smaller glands suspended in an edematous stroma, presumably mucin. Special stains for mucin were positive in the area of glandular production, particularly in the tips of the polyps. Special stains for argentaffin granules were also positive.

Carcinoid Cells

The relation between carcinoid cells and mucous-secretion is well documented and has been seen in the lung and intestinal tract.⁴ Gelatinous changes have also been noted in carcinoids of the pancreas, where transitions between normal acini and tumor cells can be seen. A report of 38 patients with carcinoma of the rectum revealed that no case in the series produced the malignant carcinoid spectrum. There was no sex or race predilection and the tumors generally occurred in the sixth and seventh decades. Rectal carcinoids may microscopically have the cytologic features of benign tumor, yet a significant number behave as malignant. Findings indicating malignancy are tumor invasion into or beyond the muscularis of the bowel on microscopic examination of a biopsy and a size of 2 cm. or more in diameter. By these criteria 39% of this series had malignant carcinoids.

These tumors occur throughout the gastrointestinal tract from the gastric cardia to the anus and in the gallbladder and bile ducts, pancreas, bronchi and teratomas. Carcinoids of the rectum are the third most common of gastrointestinal tumors and constitute 17% of the cases reported in the literature. Somewhat over 600 cases of rectal carcinoid have been recorded in the literature and 3,000 in the gastrointestinal tract.⁵

Our case, which is unique in that it appeared under the squamous epithelium, at a distance from the nearest mucosa, may have arisen from congenital rests of rectal tissue or by rectal glands which extended subcutaneously caudally, perhaps from epithelium at the base of anal crypts. ◀

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Understanding the Hyperactive Child

BY DOMEENA C. RENSHAW, M.B., Ch.B., M.D./MAYWOOD

Who and what is the "hyperactive child"? And why? The term has appeared frequently in educational, scientific, and general literature since the 1950's. It has been overused, ambiguously used, incorrectly used. Estimates state that there are three million hyperactive children in the United States, 7% of all elementary school children, making up 4% of pediatric practice. Ambiguity and exaggeration have resulted from lack of clear definition in description and diagnosis of this condition.

Since 1918, in the wake of the world influenza epidemic, workers in the field of medicine began to demonstrate the effects of organic brain disorders on the behavior and psychological function of adults as well as children, showing a spectrum from severe to minor dysfunctions.¹⁻³ In the 1950's, the concept of "minimal brain dysfunction" became popular, with a tendency to oversimplify and over-generalize the concept, disregarding diagnostic essentials. In 1954, at the International Institute on Child Psychiatry in Toronto, Canada, Dr. Maurice W. Laufer, who had worked in collaboration with Denhoff and Solomons, read a paper entitled "Hyperkinetic Impulse Disorder in Children's Behavior Problems," signaling a turning point away from vague generalities to more specific definition.⁴

Not every child who wriggles is necessarily hyperkinetic. Unfortunately, there has been much confusion, at least 38 synonyms such as "minimal brain damage," "minimal cerebral dysfunction," "minimal brain dysfunction (MBD)," "hyperkinetic syndrome," "hyperactive child," "impulse disorder," compounding rather than assisting the ambiguity.⁵ Also, there is still lack of agreement in the literature, as well as misinterpretation of outlined categories.

Symptoms

Hyperactivity is a symptom. Hyperkinetic syndrome, the preferred title, is a collection of behavioral manifestations, forming a clinical entity with a wide spectrum from mild to severe. These are some of the symptoms: ceaseless unproductive body movements, impulsivity, accident proneness, heedlessness of danger, inco-ordination, distractibility, short attention span, speech problems, marked difficulties with learning, and "soft" or minor neurological signs in some children. It is four times more common in boys than girls—yet there are no gross physical deformities which allow others to excuse the problem behavior. It

usually (not always) improves after puberty. It is logical to believe that the child with true hyperkinetic syndrome has always been with us. Mid-19th century German nursery rhymes and an 18th century English poem with drawings are undoubtedly recognizable as no different from today's youngster who is afflicted with hyperkinetic reaction.

The hyperkinetic child is always in trouble; he is blamed for being willfully an agitator; yelled at and often angrily rejected. Minimal brain dysfunction describes the phenomena of disturbances of cognition, perception, and learning, which is commonly seen in this condition. Minimal brain damage is an attempt to describe presumed (but unknown) underlying pathology within the brain of the child, which might have occurred in utero, during delivery, or during early life. There are still more theories than proven causal factors. Induced labor, prematurity, birth trauma, immaturity of the central nervous system, enzyme deficiency, neurohormone imbalance, and broken homes are among the many theories.^{6,7} Much study is yet to be done for completeness of understanding and definition of this interesting condition.

Normal Hyperactivity

It is important to differentiate the hyperkinetic child from normal hyperactivity of early childhood. Phase-related restlessness, noise and distractibility are part of the development of infants and preschool children before age 4 years. In

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Western culture, particularly in the United States, free expression, speed, action, and individuality are highly prized. There are few servants, mothers are involved in the direct care of the children, the home, and frequently hold a job outside of the home as well. The old dictum "children should be seen and not heard" rarely prevails. While some babies are left for a number of years in a playpen, in middle class homes this is the exception rather than the rule, since most of the equipment for babies is directed toward motility and muscle co-ordination. The capacity to sustain attention long enough to watch an entire commercial or five to ten minutes of TV begins to develop by about three-and-a-half or four.

The nursery school teacher slowly attempts to get the child "desk-ready" by the end of the school year while she comfortably accepts the wandering around, the curiosity, the spontaneous anger, the emotionality, and the rudimentary self control of the four-to-five year old. However, by six years, first grade teachers expect an ability to sustain attention, to control motor movements sufficiently to sit in the desk for reasonable periods of time (between fifteen to thirty minutes at one time). The capacity to follow instructions, to collaborate in play and work, to recognize and respect authority, to give appropriate verbal responses, particularly in the expression of how he feels, are all part of the early socialization of every child.

Under stress or high excitement or fatigue, tension may be discharged by the normal six year old as hyperactivity. Such excess chattering, restlessness, and distractibility are usually easily accepted by all as mild regression in response to the special situation. This reactive hyperactivity usually clears rapidly, with appropriate phase-related behavior appearing when conditions return to normal. In the sanctuary of the home, with less restriction than the classroom, there is more boisterousness. If this persists, when the child is already of school-going age, it may be regarded as a sign of "immaturity" or poor social skills, and may represent either inability or unwillingness to learn control of impulsive motor and verbal behavior.

After the age of seven, however, poor emotional and body control are considered more definitely pathological and may require further study. Some children may show off and clown to test the teacher, gain attention, and establish their position in the local power structure. Gradually this settles down. Variations depend upon the

authoritarianism or liberalism of the particular educational expectations of each individual teacher.

Changing Society—a Possible Cause

For the truly hyperkinetic child, motor and social skills do not show orderly progressive and predictable development, but are often irregular, so that at seven or eight he may not be able to cope with the limits and requirements of a nursery school level. He will not be able to attend regular first grade, and a special classroom may be needed.

With increasing population, classes become larger. Conformity is expected in a class of twenty and thirty children. Expanding knowledge has also contributed, making curriculum more demanding, even in early grades. To exist competitively and comfortably in a complex urban society, young people are expected to know a great deal more than they did a hundred years ago. With better nutrition and better control of infectious diseases, child development statistics show an accelerated rate of all of the growth milestones. Children are walking earlier, talking earlier, reading and writing earlier, and menstruating an average of two years earlier than their 1900 counterparts. With improved technology, leisure time now offers much variety in sports and speed.

In line with this, children's toys today also display the trend toward motility. Walking and talking dolls and realistic toy astronauts, minibikes and hotrods, all add to the action.

However, it must be stressed that, although sports may be regarded by some as hyperactive, it is normal, acceptable, *productive* activity when the participant, child or adult, sustains attention throughout the game. The hyperkinetic child or adolescent shows quantitative rather than qualitative sports activity. He does not sustain attention, finish a game, and is often too distractible even to learn the rules of the loved sport.

Anxious Child

Sometimes an anxious child is mistaken as an hyperkinetic child. The anxious child certainly is hyperactive, but this activity has a very different meaning from that seen in the hyperkinetic child. Not only is the underlying cause for the hyperactivity different, but also the quality of movements is different—they are *small* movements, twisting hair, tapping a foot, plucking at clothing—not the "large movements" of

big muscle groups such as "rump" or pelvic wriggling or getting up and down in the seat or walking and running around endlessly. The small nervous movements of an anxious child stop when the child is interested and engaged in some activity. Stopping movement is not possible for the hyperkinetic. An anxious child may be preoccupied with home problems, may have underlying insecurity, but when he or she becomes interested in a task, the anxious child is able to pay attention for long periods of time. For the hyperkinetic child, sustained attention is almost impossible without treatment by medication.

Bizarre behavior may superficially resemble hyperkinetic syndrome. However, closer scrutiny reveals recurrent motor activity, such as rocking, head-banging, screaming, open masturbation, and self-mutilation. Such behavior usually indicates loss of reality contact and is called psychotic. Severe disintegrative anxiety often co-exists with bizarre behavior, although it is rare that such a terrified child is able to articulate what is the source.

Aggressive Child

Another condition superficially resembling hyperkinetic reaction is the hyperaggressive child—a difficult management problem.

Benjamin Franklin once said: "It is not always easy to say the right thing at the right time, but it is far more difficult to leave unsaid the wrong thing at the tempting moment." For the concerned adult, parent or teacher dealing with an angry, rebellious, aggressive child, the tempting moment is frequent and recurrent. The tendency to lose control of one's composure and respond emotionally to the child's aggression with immediate counter-aggression, verbal or physical, is indeed tempting. Such a situation requires awareness, self control and composure, together with a real understanding that this irritating and provocative behavior is the child's way of trying to express many other emotions.

All humans live with a normal degree of irritations to which they respond with anger; these are usually transient. Everyone in the home can endure such occasional episodes. It is the chronic repetitive, ongoing day-to-day anger conflict, aggression and counter-aggression, which will breed the hyperaggressive child. Another situation which often produces similar aggressive outbursts is the indulged child. This child's angry explosions overwhelm his parents who then produce the objects he demands, leaving his behavior unbridled by necessary limits or discipline.

When a parent insists that the child is well-behaved at home, while school authorities describe impossible behavior on the bus and disruptive behavior in the classroom, more information is needed. The story from the child may be that due to fear of intense, retaliatory, physical beatings at home, he manages to control his aggression within range of his parents. The underlying dynamic of the explosive behavior away from home is that the pressure of the anger builds up to a point of explosive eruption as soon as the child leaves home. The threat of punishment and rejection is far less from teacher, principal or bus driver than it is from the parents with whom he is both angry and emotionally bound.

This type of hyperaggressive child is commonly referred to by psychiatrists by teachers as "hyperactive," "disruptive," "impossible to manage," and "underachieving." These are all signals sent out by the child saying that he is struggling to cope with a very unhappy situation. Although difficult for those around him, this behavior is more wholesome for the child, since there is still some attempt to cope with and adjust to life, unfair as he perceives it. Aggressive outbursts may alternate with withdrawal into his own fantasy life, where rage can be worked out in imagination. The latter is of far graver concern to the psychiatrist, since such a child may give up on obtaining help from anyone. A child with hyperkinetic reaction may also have anxiety and show aggressive behavior, just as other children.

A child's capacity to articulate is still rudimentary, and may require professional assistance, so that expression of true feelings are possible. Both parents must be seen for evaluation too, since ongoing anxiety or aggressive behavior in a child are rarely without antecedents in his or her rearing.

It is important to note how much excess aggressive stimulation the child witnesses in the home, either verbal or physical violence of one parent to the other, between another child and parent, or between significant others within the home situation. These are modes of behavior which the child learns to use when reacting to perceived stress of any kind. Inconsistency in upbringing promotes insecurities, the child never knows what to expect. "Fight and flight" are normal counterparts of self-preservatory reflexes in every living organism. Where uncontrolled and unpredictable hostility or persistent deprecation are prevalent in the home, the child may feel trapped, helpless, defenseless, chronically fearful, and act out his

own counteraggression toward younger sibs, peers, or society.

If these experiences are persistently present for a number of years, and no corrective emotional experiences are obtained by adolescence, we see the nucleus of the young delinquent. Such is the basis for personality disorders and poor adult adjustment.

Treatment

An untreated child with Hyperkinetic Reaction may show either hyperanxiety or hyperaggression as an overlay upon the hyperkinesis by the time he presents for evaluation. Once the hyperkinesis is controlled by specific medication, the residual emotional reactions can be evaluated and dealt with by brief, intermittent individual psychotherapy or family therapy if indicated. Fortunately, today we have effective and specific medication, which greatly modifies many of the symptoms, allowing the child to develop optimal academic, sports, and social skills. Stimulants such as Dexedrine and Ritalin are used in daily doses from as low as 5 mg. to as high as 200 mg. per day. There are definite individual differences.⁸ Children small in size may require large doses, whereas bigger boys may use less. There are no generalizations possible. Dynamic parent-physician contact is important until an effective optimum dose is attained, starting from a small dose and increasing daily until positive results without undesirable side-effects are achieved. Ritalin is usually the drug of choice, and is highly efficient in 85% of truly hyperkinetic children. It is also useful as a diagnostic trial if there is any doubt of the diagnosis. The effect is usually quite dramatic—in optimum dose, the calming change can be seen within a half hour and lasts about four hours, with a return to the hyperactivity, short attention span, etc., when the medication wears off.

Medication calms the excess movements and increases attention, as well as concentration, so the child can use his innate intellectual capacity. There are many things that medication cannot do: it cannot provide love, discipline, skills, self-esteem, new intelligence, or a stable family. Spe-

cial education classrooms may still be required for a time. Some family education is essential regarding the need for firm, clear limits, for repetition, for lessened distractions, and recognition, when this is merited, in order to build up self-esteem and motivation to achieve.

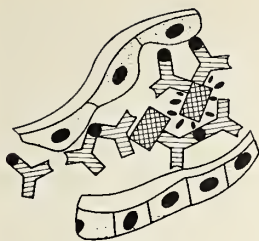
Each child has a right to treatment—specific and adequate treatment for as long as is needed. This is often withheld due to uninformed bias of parents, teachers or even physicians, who have anxiety regarding unknown harmful side-effects of medication. However, what is sadly neglected are the known severe direct results of the pathology: non-learning, suspension from class; ostracism by peers; angry rejection by family and low self-esteem with no motivation to improve or learn. Who will return the lost years? It is the right of the hyperkinetic child just as it is the right of the juvenile diabetic to obtain specific medication with proven effectiveness for as long as he needs it. Today there is much hope for the hyperkinetic child. With the helping network of concerned parents, informed physician, specific medication and adequate school facilities, these children have, can, and do make a very satisfactory life adjustment. ◀

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Tonic

"My objective is to get the federal government as far out of your business, out of your lives and out of your hair as I possibly can."—President Gerald Ford, in a Chicago speech to businessmen.



Seminars In Immunopathology and Oncology

RICHARD J. ABLIN, PH.D., CONTRIBUTING EDITOR

BCG Vaccine

Past, Present, Future

BY RAY G. CRISPEN, PH.D./CHICAGO

Past History

BCG vaccine, which is named after the co-developers was begun by Dr. A. Calmette and C. Guérin about 1904 at the Pasteur Institute at Lille with a strain of *Mycobacterium bovis* isolated two years earlier by A. Nocard from a heifer with tuberculosis mastitis. At the beginning, this strain of mycobacteria was fully virulent for cattle, laboratory animals, and presumably, man. After four years of subculturing this strain in the laboratory, the investigators discovered in 1908 that beef bile could successfully be used to prepare finely dispersed emulsions of tubercle bacilli for vaccination experiments. A great technological breakthrough came when Calmette and Guérin began to culture this strain in media containing beef bile at three-week intervals. The character of the growth changed from granular, dry and rough to viscous, moist and smooth and the change became constant and permanent. After a transitory increase in virulence, the strain gradually and steadily lost its virulence, first for the calf and later for the guinea pig. The subculturing proceeded for thirteen years and 231 transplantings without interruption. Even the upheaval of World War I did not interfere and by 1920, the culture was considered avirulent.¹

The race for a successful tuberculosis vaccine

which had occupied the attention of much of the medical research community since shortly after the discovery of the tubercle bacilli as the etiological agent of tuberculosis by Robert Koch in 1882 was rapidly drawing to an end. In July, 1921, BCG vaccine was first given to humans, in the case of a newborn infant who was to live in a household with active cases of tuberculosis. Past experiences had demonstrated that in such a situation the child would probably develop tuberculosis and die within two years. Dr. B. Weill-Halle administered the vaccine orally to the child and thus established the first evidence of the protective properties of BCG vaccine against tuberculosis in man. The child suffered no ill effects and at the last report was 33 years old and living in the United States.² In July, 1922, a series of 120 children were vaccinated, and the use of BCG vaccine on a broad scale began.

Medical Skepticism

As with any new medical advance, the pathway to medical acceptance was not a smooth one. The many contenders in the race to develop a successful tuberculosis vaccine who had failed, led to a skepticism that was difficult to overcome. Because of the initial successes, mass vaccinations were encouraged and no controlled experiments in humans were performed. It was not until thirty years later that an adequately controlled trial in humans was begun.³ As a result of the lack of firm evidence on efficacy, many scientists viewed the use of BCG vaccine with mistrust and opposed its use. This was especially evident in the United States which never established a large BCG vaccination program, although throughout the world BCG vaccine has been one of the most widely used vaccines.



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A complicating factor in the acceptance of BCG vaccine arose in 1927 when Petroff, Branch and Steenken⁴ reported that they had grown from a culture of BCG a non-virulent "R" variant and a virulent "S" variant that produced progressive tuberculosis in guinea pigs. Other investigators confirmed the virulence of the "S" variant in guinea pigs but not in rabbits. Several further attempts by other investigators also demonstrated the separation of BCG strains into "R" and "S" variants, but virulence could not be demonstrated for either. Petroff's hypothesis was that there were two variants in the BCG strain, and the manner of cultivation favored the non-virulent variant. Over the course of years, the portion of the virulent variant would decrease, and the culture would be safe to use. It could be expected that with further passage of time that the virulent portion of the culture would be completely lost, and it appears that this is what happened.

This controversy continued for the period between 1927 and 1930 but soon ceased as further attempts to demonstrate virulence were unsuccessful. Since that time attention has been turned more to the possibility of the loss of immunogenic potency of the vaccine by successive subculturing on artificial media. As a result of prolonged subculturing on media, it has been possible to demonstrate the loss of potency. The resulting variation in potency that has arisen because of the large number of laboratories producing BCG vaccine throughout the world has led the World Health Organization (WHO) to establish standards for producing BCG vaccine.⁵ These standards recommend that the vaccine be made from freeze-dried seed lots which maintain their characteristics indefinitely. By returning to the seed lots for starter cultures for vaccine production, the problems of attenuation by subculturing are eliminated. Licensed BCG vaccine produced in the United States follows these recommendations.

Lubeck Disaster

Another factor that complicated the acceptance of BCG vaccine was the Lubeck disaster in 1930. Between December, 1929, and April, 1930, there were 251 infants vaccinated orally with contaminated BCG vaccine within the first ten days of life in Lubeck, Germany. Of these 251 there were 72 who died of tuberculosis, most within two to five months. Of the rest, 135 suffered from clinical tuberculosis but recovered, and 44 became tuberculin positive but remained well.

None of the 161 unvaccinated children born also at this time in Lubeck was affected and none died of tuberculosis within the next three years.

Since this episode occurred during the controversy about the "R" and "S" variants in BCG vaccine, the attention of the entire medical world was focused on the investigation undertaken by some of the foremost pathologists in Germany. This evolved into a judicial trial by the Superior Court of Lubeck of those involved in the vaccine program.

As brought out at the trial, there was negligence in the preparation of the vaccine. Virulent human strains of tubercle bacilli were kept in the same laboratory, and the vaccine was prepared by a laboratory attendant without medical qualifications working evenings after routine duties were finished. Records were not kept and no attempts were made to check the safety of the vaccine by injection into guinea pigs. It was only by the most fortuitous circumstances that the Kiel strain of human tubercle bacilli was used for virulent tests in the laboratory where the vaccine was prepared. This strain has the unusual property of producing a characteristic greenish-yellow fluorescence when grown on Sauton medium. Cultures of a few vials of vaccine recovered from the laboratory and numerous cultures isolated from the fatal cases and a few of the tuberculosis infants had the characteristics of the Kiel strain. On this evidence, the court concluded that the vaccine had been contaminated with virulent tubercle bacilli during preparation and that BCG was not responsible for the cases of tuberculosis. An excellent summary of this episode is given by Sir Graham Wilson.⁶ As a result of this disaster, very strong guidelines⁵ and laws^{7,8} have been enacted to safeguard the production of BCG vaccine for use in humans.

After the death of Calmette in 1933, the center of BCG vaccine utilization shifted to the Scandinavian countries. Following World War II, a concerted effort was made to establish BCG programs throughout the world. The war had caused a large increase in cases of tuberculosis as a result of the population upheaval with the resulting disruptions of adequate housing, food supplies, and medical services. In 1947, the Danish Red Cross began tuberculosis relief work in several European countries which had suffered severely as a result of the war. In 1948, the Swedish Red Cross and the Norwegian Help for Europe Organization joined the effort. The United Nations International Children's Emergency Fund (UNICEF) allocated two million dollars to start vaccinations outside Europe.

With the addition of support by WHO shortly thereafter, massive vaccination programs were established throughout the world and have resulted in well over 500 million BCG vaccinations.⁹

Efficacy of BCG Vaccine Against Tuberculosis

The efficacy of BCG vaccine has been well summarized in two recent reports.^{3,10} Muggleton¹¹ reports that all the vaccine trials to date demonstrate that BCG causes 85-90% protection against tuberculosis for several years. This protection slowly declines but remains substantial up to 15 years. Certain trials which did not exhibit this level of protection were complicated by the unsuspected influence of "atypical" mycobacterial sensitivity and immunity or inadequate vaccination procedures, although the quality of the vaccine has also been questioned.¹² Sutherland¹³ has proposed that the varying results of vaccination are a function of the rate of exposure of the population to tuberculosis infection. He demonstrated a direct relation between the protection of BCG vaccine and the development of tuberculosis in tuberculin-negative controls.

It is interesting to speculate that the high degree of protection given by BCG vaccine is dependent upon the constant exposure by the individual to pathogenic tubercle bacilli in the environment. If this continuous challenge is lacking, then protection wanes and is reduced to the point where it is no longer effective. Subsequently, upon exposure to virulent tubercle bacilli, the individual is as susceptible to the infection as the non-vaccinated. There is evidence from the University of Illinois BCG Clinic that this may be the case as the loss of tuberculin sensitivity is nearly linear over time if the risk of exposure is minimal.¹⁴ The loss of immunity does not parallel the loss of tuberculin sensitivity¹⁵ and this interrelationship is not fully understood. The rise of hypersensitivity to tuberculin of the "atypical" mycobacteria as a function of age¹⁶ in children is also a factor whose significance is increasingly being realized in relation to the reduction in tuberculosis exposure.¹⁷

Types of BCG Vaccine Preparations

Currently, in this country only the freeze-dried form of vaccine is licensed for use in humans. Experimental preparations frozen at -70°C sometimes are available but difficulties with handling and shipping of the frozen vaccine complicate extended use.

The concentration of BCG vaccine is either

percutaneous (40-75 mg/ml with 1×10^7 to 1×10^9) CFU (Colony Forming Units), or intradermal (0.15 mg/ml with 3.6×10^6 CFU). Oral doses of vaccine usually contain 80-160 mg/dose and is usually made by combining several ampules of vaccine in the volume required for a single oral dose.

The different vaccine preparations can be used interchangeably with suitable adjustment of the concentration. Dilution of the percutaneous vaccine by 100-200 times will produce a suitable intradermal concentration. Pooling of several ampules of intradermal vaccine on reconstitution will give a vaccine suitable for percutaneous use. The optimal use of the vaccine, however, is the concentration and route for which it was originally prepared. The multiple puncture method of vaccination is illustrated in Figure 1 and the results of such a vaccination is demonstrated in Figure 2.

Preparation of Vaccine

BCG is usually grown as a pellicle on the surface of liquid media as shown in Figures 3 and 4. Because of the high lipid content of the cells (40-60%) the bacilli making up the Colony Forming Unit (CFU) usually range from one to several thousand, and therefore, the CFU is not directly related to the number of viable bacteria in the preparation. With the exception of the vaccine made by the Glaxo Company in England,

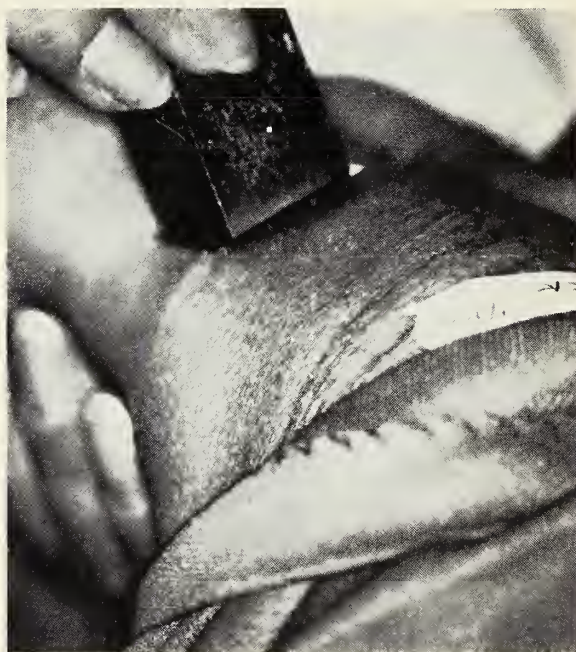


Figure 1. Vaccination with 36-point multiple puncture disc.

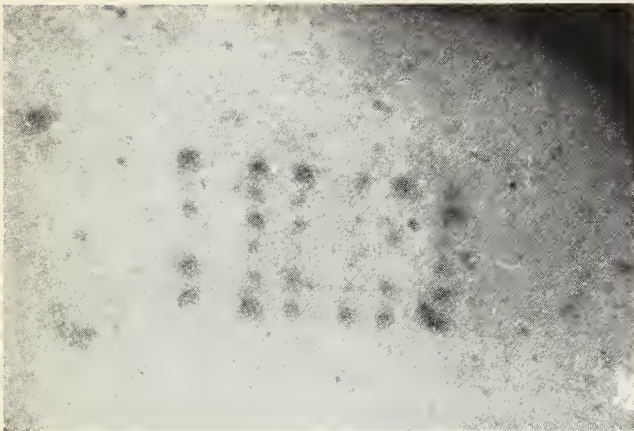


Figure 2. BCG vaccination site 12 days after vaccination. Note the discrete individual reactions at the site of each puncture which illustrates the advantage of this method. A large dose of vaccine can be given with minimal local reaction and little or no permanent disfiguration.

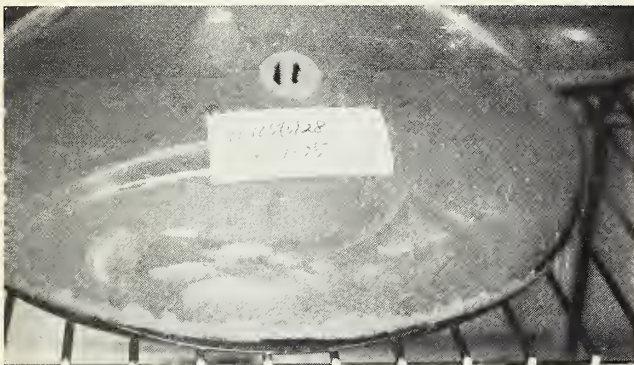


Figure 3. Culture of BCG growing as pellicle growth on surface of liquid medium.

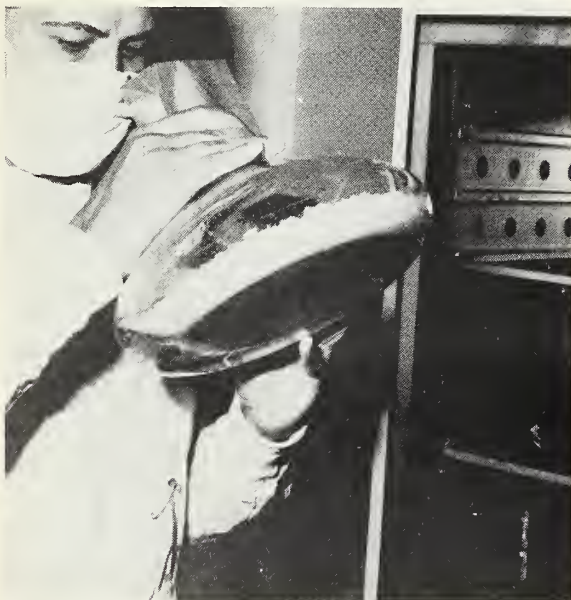


Figure 4. Flask of BCG culture after nine days growth being removed from incubator for preparation of vaccine under rigidly controlled conditions.

all licensed vaccines are made by the pellicle method, and the culture collected and ground by various means to make a homogenous suspension. This grinding results in the breaking of many cells and causes the vaccine to be composed of live bacilli and various fractions of the cells. Therefore, it is not possible to determine the biological potency of the vaccine by means of the CFU only, as the other materials in the vaccine also have biological properties.

It appears that the live bacilli are the most important single component of the vaccine as they act to potentiate¹⁸ and modify¹⁹ the overall reaction to the vaccine. The interaction of the live and dead portions of the vaccine appear to be synergistic rather than additive however, as the combination has greater reactivity than either component alone.¹⁸

Present BCG Vaccine and Tuberculosis

At the present time vaccination programs are undergoing changes. In many of the developed countries the amount of BCG vaccination is decreasing as the risks of exposure decline in the general population. BCG continues to be used for special populations with continued high risk but is being discontinued as a general vaccination. In developing and underdeveloped countries, there are new BCG laboratories for preparing vaccine, and new vaccination programs are being established. In areas where money and medical services are inadequate, BCG vaccine is the most economical way to combat tuberculosis.

BCG Vaccine in Non-Tuberculosis Infections

BCG is currently undergoing trials in the prevention of leprosy. First reports indicate an increased amount of protective capacity developed as a result of BCG vaccination.²⁰

In Africa, BCG has proven partially effective against the Bruli ulcer (*M. ulcerans*).²¹ Because of the lack of any treatment other than surgery for this condition, the value of BCG vaccine in increasing resistance is of major importance.

In children who have been BCG-vaccinated, there is a lowered incidence of pertussis.^{22,23} Because of the difficulties with efficacy and morbidity with pertussis vaccine, this property of BCG may become significant. Lower incidence of varicella in BCG-vaccinated children has also been demonstrated.²⁴ Recently a report on the successful use of BCG vaccination to prevent recurrence of herpes virus infection was published.²⁵ This has major implications in the clinical as well as theoretical immunology for further use of BCG vaccine.

In the Concord Trial²⁶ of the use of immunotherapy in acute lymphoblastic leukemia (ALL), the patients receiving BCG vaccine had fewer intercurrent infections/statistically significant than those receiving methotrexate. Since infections are one of the major hazards of cancer and its therapy,^{27,28} it is possible that BCG may be of significant value in preventing or ameliorating infections in cancer patients in addition to its anti-tumor properties.

BCG Vaccine in Human Cancer Therapy

The use of BCG vaccine for tumor treatment dates back to 1935 when Holmgren²⁹ used BCG intravenously, intralesionally or subcutaneously. In 28 cases of cancer he gave 185 injections intravenously without serious side effects. In the early 1960's Villasor³⁰ reported the treatment of 43 unselected patients with various types of advanced cancers. The treated patients' survival at 2 years was superior to the control group treated with chemotherapy alone. Hadsiev and Kavaklieve-Dimitrova³¹ in Bulgaria using BCG by the intradermal route reported in 1969 that in a carefully controlled study the increase in survival of 71 patients with bronchial carcinoma was extended from 3 to 14 months over the control cases. In addition, complete regression of skin carcinomas in 9-25% of the cases was noted. In 1969 Mathe, et al,³² reported a controlled study using BCG by scarification for the successful prolongation of remission of acute lymphoblastic leukemia. Garner, et al,³³ have used the aerosol route for lung cancer. Morton³⁴ directly injected BCG intratumorally into melanoma nodules and McKneally used intrapleurally administered BCG in bronchial carcinoma. A critical review of immunotherapy of human cancer including much of the work regarding BCG was recently written by Baker and Taub.³⁶

Another significant step in the use of BCG was revealed with the publication by Davignon, et al,³⁷ in which they reported that the incidence of leukemia in BCG-vaccinated children was one-half that of non-vaccinated children. A further report from Great Britain also demonstrated a reduction, by one-half, of the leukemia incidence in the BCG-vaccinated portion of the Medical Research Council Trials as compared to the non-vaccinated. A report by Rosenthal, et al,^{38,39} in 1972 in Chicago showed a five-fold reduction in leukemia as a result of BCG given at birth as compared to non-vaccinated other children, matched by race and age. Crispen⁴⁰ demonstrated that this reduction also extended to all forms of neoplasms of this age range (0-20 years) and race.

With the large numbers of clinical investigations that were started in the early 1970's approaching their five-year followup, the usefulness of BCG vaccine in cancer therapy is rapidly being established. The recent reviews by Bast⁴¹ and Laurius, et al,⁴² confirm that the value of BCG vaccine is firmly established. The accumulation of data from clinical studies now underway will most likely result in the approval of BCG as an additional form of treatment of cancer in the near future.

Future

At this time the discussion of the future of BCG vaccine is speculation. With the drastic changes in the medical approach to tuberculosis that have taken place within the past few years the use of BCG for anti-tuberculosis purposes will continue to decline, but its use in new areas of high risk exposure resulting from the changes in tuberculosis treatment should be expanded. The major use of BCG will be in the treatment of cancer patients although the potential for its use as a preventive of infections should be thoroughly investigated.

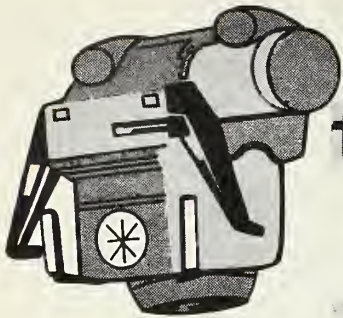
Better understanding of the theoretical basis of the immune response and the manner in which it can be manipulated to the patients' advantage will enable more precise therapies to be applied. The wide range of the effects of BCG vaccine on the immune system extending from the demonstration of shared antigens of BCG with animal⁴³ and human tumors⁴⁴ to its ability to stimulate a strong response of the efferent branch of the immune system against tumor by non specific means illustrates the value of BCG vaccine in developing the science of immunotherapy for cancer.

Non-immunological effects of BCG vaccination such as increased phagocytosis could also play a significant part in its anti-neoplasm role by removing tumor antigens and blocking factors thus making more efficient the host's struggle against the tumor.

The ability of BCG to increase anti-viral immunity may have an increased significance in both the infection as well as the carcinogenesis problem. As the knowledge of neoplastic processes and host responses increases, the usefulness of BCG vaccine may decline. However, for the near future the use of BCG vaccine will continue to increase because there is no other substance that can equal its range of stimulation of the host. With BCG vaccine, man has invented the basic tool for immunologic research. ◀

References

A list of references for "BCG Vaccine" may be obtained by writing IMJ, 55 E. Monroe, Suite 3510, Chicago 60603.



the view box

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This 72-year-old male presented a gradually increasing soft tissue mass of the distal index finger. He had noted that it had become quite painful at times.



What's your diagnosis?

1. Osteogenic sarcoma
2. Chondro sarcoma

3. Gout
4. Giant cell tumor

(Answers on page 380)

Intra-Arterial Monitoring and Recording of the Blood Pressure

BY ANTONIO BOBA, M.D./MT. VERNON

Monitoring and recording of the blood pressure during anesthesia is a task which is intended to produce a record which is a mirror image of the patient's conditions. This record is then used by the anesthetist for the purpose of making judgment and management decisions about the patient. For practical purposes, because of tradition and established practice, the anesthetist samples and records intermittently some selected vital signs. This process places the anesthetist in the dubiously tenable position that he can objectively perform all of the following tasks: gather data, evaluate data, predict the next set of data and decide on their acceptability, act on this latter decision, gather more data and verify the validity of his projections and actions by evaluating the new data. Clearly an act of faith is required in order to believe that the anesthetist can be so objective under conditions prevailing during anesthesia and operation.

In order to introduce some measure of objectivity in the process of constructing a patient record it was decided that some vital signs should be monitored and recorded in a continuous and automatic fashion by means of appropriate instrumentation. This report will deal exclusively with our experience as it pertains to continuous and automatic recording of the arterial blood pressure by means of a percutaneously inserted cannula, a strain gauge, and a strip chart recorder.

Resources

Criteria for the percutaneous insertion of an arterial cannula were: 1) intraabdominal operations or operations that would involve a major vessel, 2) operations involving the head and neck or the central nervous system, 3) patients with a history of serious cardiac or cardiovascular disease, 4) whenever it was anticipated that the planned procedure would last in excess of 90 minutes, 5) whenever it was anticipated that precise knowledge about blood pressure would modify in an essential way the management of the anesthetic, and 6) emergency situations.

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For each cannulation the following information was noted and immediately recorded: patient's name, age, sex, artery that was cannulated, operative site, the duration of cannulation as well as the highest and the lowest recorded systolic pressures. Finally, any unusual or extraordinary intraoperative or postoperative developments that could be assumed to be related to the presence of the cannula were also noted and recorded.

A total of 1952 cannulations have been performed to this date. Data relative to the first 500 cannulations have been reported elsewhere¹ and this report will be limited to observations made in the course of the last 1452 cannulations.

Observations

Review of the data relative to age, sex and operative site, indicates that the population under consideration conforms to that of a busy general hospital. Duration of the cannulation was less than three hours in about 80% of all patients and it exceeded five hours in about 8% of all patients. The size #18 cannula was employed in more than 95% of all patients. Teflon catheters have been employed exclusively since they have been commercially available.

The difference between the maximum and the minimum recorded systolic pressure in the course of any given procedure was 40 mm Hg or more in about 60% of all patients. Systolic blood pressure readings below 80 mm Hg were noted at some time or another in about 43% of all patients, but in patients 70 years of age or older

this incidence was about 36%. No evidence could demonstrate that harm was derived to any of the patients from these "hypotensive" episodes.

There were no complications with sequelae. Cutaneous ischemia, proximal to the indwelling end of the cannula², was observed probably a dozen times in the nearly 1100 patients in whom the radial artery was cannulated, but contrary to published reports it never lasted more than a few minutes. There occurred one instance of cutaneous ischemia involving the forearm which was treated successfully and without any residuals by prompt removal of the cannula, immediately followed by perivascular infiltration of 2.0% lidocaine at the wrist, elbow and axilla (a stellate block was also performed).

Because of the manner in which the data were collected it was possible to observe and catalog in a prospective fashion those instances where the information provided by the cannula materially affected the management of the anesthetic. A summary of these instances is shown in Table I. It should be noted that a critical analysis of the clinical material allows one to recognize four major categories, also listed in Table I, on the basis of certain shared traits.

Table I
Instances Where Intraarterial Blood Pressure
Monitoring Factually Altered the
Anesthetic Management*

	Number of Patients
Group One	
Detection of a totally unsuspected condition.	16
Group Two	
Better management of some anticipated intraoperative development.	24
Group Three	
Better management of known and pre-existing complicating conditions.	44
Group Four	
Management of intraoperative developments that originated suddenly during anesthesia and which had not been anticipated.	86

*Abstracted from data obtained in 1452 percutaneous arterial cannulations.

Group 1

Unsuspected findings were pronounced systolic hypertension or hypotension and in three instances, severe arterial dicrotism. The two instances of severe hypotension were traced back to a medication error. The interesting aspect about the eleven patients with unsuspected hypertension was the great disparity between the known pressure and that measured via needle and strain gauge (sometimes as much as 140 mm Hg).

Group 2

The factor common to these patients was that intra-arterial pressure monitoring allowed for better management of intraoperative developments that had been anticipated. Typical examples would be patients undergoing an intracranial procedure for correction of a vascular lesion under hypothermia and hypotension or, a patient being operated upon for removal of a pheochromocytoma.

Group 3

The patients in this group have in common the fact that at the time of the operation they all suffered from some obvious debilitating condition or complication. Overt severe hemorrhage was present in ten patients, severe trauma with or without concomitant hemorrhage was present in seven patients, fifteen patients had severe primary cardiac dysfunction (acute failure or a previous history of two or more myocardial infarctions), and finally, severe metabolic disturbances with extracellular fluid loss were present in twelve patients.

Group 4

In these patients the common trait was the fact that the wisdom of intraarterial monitoring was demonstrated "after the fact" because of intraoperative developments which had not been anticipated when monitoring was first instituted. Severe sudden intraoperative hemorrhage occurred in fourteen patients, severe dysrhythmias and tachyarrhythmias developed in thirty-eight patients, severe unexplained hypotension (Fig. 1) not related to hemorrhage or other known causes occurred in twenty-one patients, life-threatening machine malfunctions occurred in six instances, and gross physiologic derangements secondary to an error in judgment or management occurred in six patients. There was one patient that developed a life-threatening spontaneous tension pneumothorax at induction.

Discussion

Continuous and automatic monitoring and recording of the blood pressure by means such as those under consideration can be advocated on two grounds. First, there is the reliability of the method and the avoidance of personal bias intrinsic to the technique. This issue is self evident and no further comment will be offered.

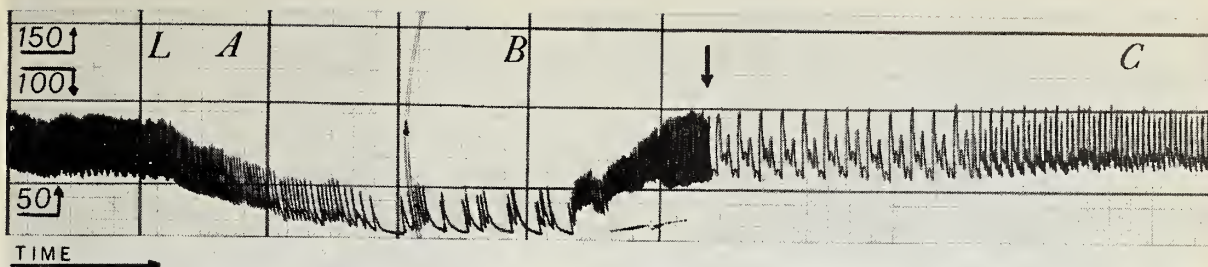


Figure 1. Record of sudden unexplained hypotension and bradycardia during general anesthesia for tubal ligation (last delivery was three years previously). Time interval between vertical lines is one minute, blood pressure in mm Hg as marked. After intravenous atropine (0.6 mgm) the patient received 300 mgm of thio-pental. Topical anesthesia of the orotracheal airways was completed with 2.0% lidocaine and endotracheal intubation was carried out without the benefit of muscle relaxants. Anesthesia was then induced and maintained with halothane/oxygen. Before entering the peritoneal cavity, d-tubocurarine 6 mgm was administered and manual ventilatory assistance/control was begun.

After the first fallopian tube had been ligated ("L") a slight downward trend of the blood pressure was noted. At "A" halothane administration was discontinued but the pressure continued to fall and alarming bradycardia was also noted. Manual ventilation with 100% oxygen was continued and at "B" atropine (1.0 mgm) was administered intravenously. There was a prompt increase in pulse and blood pressure, a bigeminal rhythm was also noted (at the arrow the paper speed was increased and the bigeminal pattern can be seen). Spontaneously, a regular rhythm returned and at "C" halothane administration was begun again. The procedure was then completed without further difficulties.

The second argument, in reality a necessary consequence of the first, asserts that there must exist a certain number of instances where the data generated by the technique are of such a nature that the management of the anesthetic is thereby factually altered and in essence improved. Inspection of Table I and review of the clinical material already discussed would indicate that this is the case 12% of the times.

Like all instances where statistics are concerned, one should be very careful about the objectives of the survey, the sampling methods and the total population, sampled and un-sampled, before accepting any generalization at face value. Here one should note that the instances in which the availability of intraarterial monitoring improved the anesthetic management can be divided into two broad categories: A) where the need had been anticipated (Groups 2 and 3), and B) instances where the need had not been anticipated (Groups 1 and 4).

Clearly if one were to consider only those patients that did fall, or might have fallen, into the first category then with careful patient selection one could reach a point where intraarterial blood pressure monitoring proves itself valuable each and every time it is resorted to, essentially a 100% rate of reward.

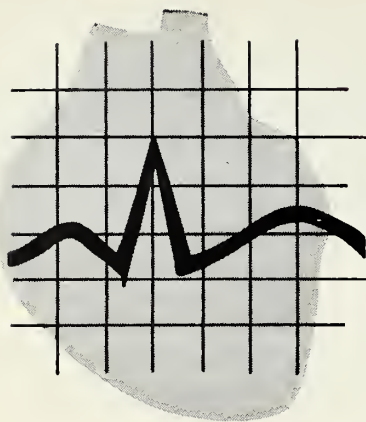
On the other hand, for the patients in the second category this preselection is not possible by definition. Thus, on the basis of the available data, one could reach a tentative conclusion that if one adopts a liberal policy for intra-arterial blood pressure monitoring then one

ought to expect valuable and unanticipated information in about 7% of all patients. However, it is probably unwise to accept this generalization without at least some reservations. This would have to be so because, even though the criteria for arterial cannulation were liberal, they still represent preselection of some kind. In fact one should note that it would be reasonable to surmise that if intra-arterial blood pressure monitoring was resorted to in all patients, then the rate of return in terms of rewarding findings might be less than 7%. However, one ought not be surprised if, having carried out such an undertaking, the rate was greater than 7%.

In conclusion, under the criteria which were adopted for intra-arterial monitoring and recording of the blood pressure, we have found that information obtained through this method materially alters the anesthetic management in approximately 12% of the patients thus monitored. While it is possible to increase this rate of reward, by a proper selection of patients, one should note that in 7% of the patients thus monitored, the value of having an indwelling arterial needle in place developed during the course of the procedure, for reasons that had not been and could not have been predicted in advance. ◀

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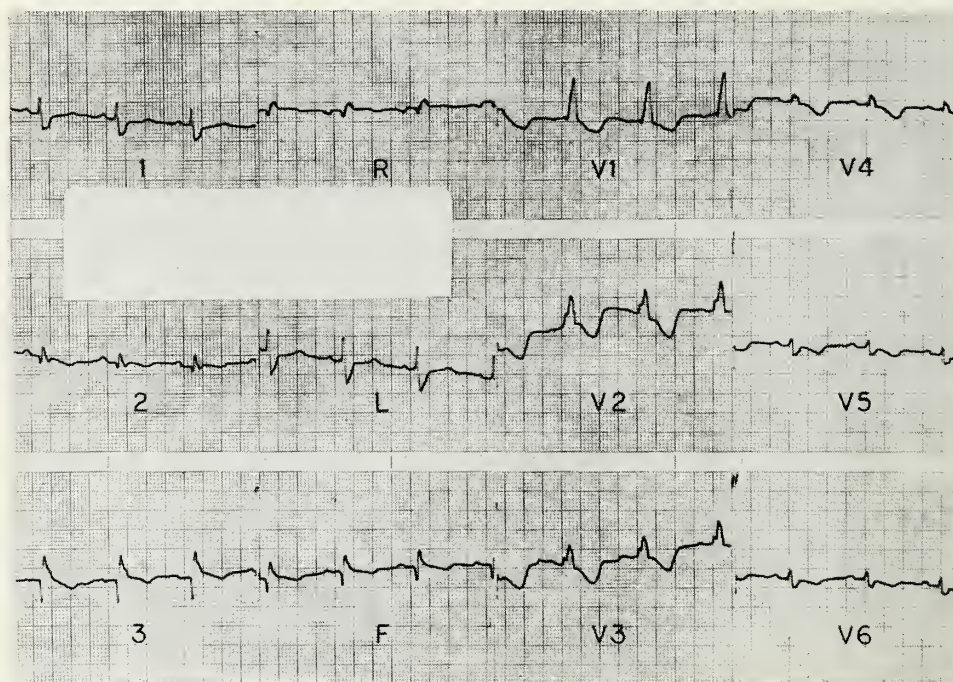
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ekg of the month

JOHN R. TOBIN, JR., M.S., M.D., RIMGAUDAS NEMICKAS, M.D.,
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A 40-year-old mechanic was seen in the emergency room complaining of indigestion for the past 12 hours. He described it as epigastric fullness, nausea, and 2 bouts of vomiting without relief. On exam, he was diaphoretic. Blood pressure was 110/70. A loud S_4 was heard at the apex. The abdomen was negative. An electrocardiogram was taken.



Questions:

1. The tracing shows:

- A. Normal PR interval.
- B. Right bundle branch block.
- C. Inferior wall infarct, recent.
- D. Primary T wave changes.
- E. All of the above.

2. The treatment for this patient should include:

- A. Insertion of temporary transvenous pacer.
- B. Nasogastric suction.
- C. Morphine sulfate as needed.
- D. Prophylactic digitalization.
- E. None of the above.

(Answers on page 367)

LP in the ER?

BY HENRIETTA K. SACHS, M.D./CHICAGO

Lead poisoning programs that screen for evidence of undue lead absorption have effectively decreased morbidity and deaths by early detection and treatment of asymptomatic children.¹ However, screening programs, where they exist at all, are directed toward the well-child population. Mothers are discouraged from bringing potentially infectious sick children to screening sessions or infant clinics. The irritable, vomiting child, with obscure signs of early lead encephalopathy, is taken not to a screening station, but to an ER where too often he receives an incorrect diagnosis and medication inappropriate for lead poisoning, only to return later with flagrant lead encephalopathy. The urgency of identifying these children at the initial hospital visit is demonstrated by examination of recent hospital and clinic records and autopsy protocols.

Abbreviations:

LP:	Lead Poisoning
ER:	Emergency Room
EMH:	Educable Mentally Handicapped
URI:	Upper Respiratory Infection
EDTA:	Calcium Disodium Edetate
BAL:	British Anti-Lewisite, Dimercaprol

Case Histories

Case One

A 34-months-old boy was brought to the pediatric ER of a teaching hospital a few hours after falling down a flight of stairs. His mother recalled at a later clinic interview that she complained to the doctor of a change in the child's behavior the past several days—that "he was very quiet, wouldn't eat or play, just sat and looked at you, and his speech wasn't clear." The examining physician told her that nothing was wrong and sent him home. Three days later a relative suggested to the mother that he had lead poisoning. He was taken back to the ER where blood was drawn for lead and an X-ray taken which showed paint particles in the abdomen. He was sent home again but recalled the following day after a blood lead concentration of 285 $\mu\text{g}/100\text{ ml}$ was reported. The admitting physician wrote in the chart, "Active as usual, no lethargy. No difficulty in speech is noted." During the 24 hours after admission, repeated enemas and X-ray of the abdomen were ordered before EDTA was given. At discharge, deterioration in speech was apparent in this

previously verbal child who now attends EMH classes.

Case Two

A 35-months-old boy had symptoms of poor appetite, constipation, irritability, difficulty in walking, and vomiting, which appeared gradually over a one-month period. His mother, who learned of lead poisoning from television, took him to a hospital when she saw him eat paint. The physician's chart entry read, "This assumption is to be corroborated by lab blood findings." He received no specific medication and was discharged 3 days later "eating well and very playful" with the diagnosis of "URI." However, blood drawn on admission for lead determination did not reach the toxicologist until 19 days later when it was reported as 208 $\mu\text{g}/100\text{ ml}$. He was admitted for treatment at another hospital where radiograph of the abdomen showed freshly ingested paint. He is now in 1st grade where his school work is below class average.

Case Three

A 34-months-old girl was taken to the ER of a hospital after a day of vomiting and running nose. She was sent home with the diagnosis of URI and upset stomach. Vomiting continued for 2 more days. After a day of apparent improvement, she suddenly became unresponsive and began to convulse. She was taken to the ER of another teaching hospital where she developed respiratory arrest and required artificial ventilation. X-rays showed widened cranial sutures and lead lines in the proximal tibia. Blood lead was 370 $\mu\text{g}/100\text{ ml}$. She responded to EDTA and BAL, but had frequent seizures during the next 3 years and is now a slow learner in an EMH class.

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Case Four

A 2-year-old girl was taken to the ER of a neighborhood hospital with a history of vomiting and loose stools for a week. Gastroenteritis was diagnosed and she was sent home. The following evening she was taken to another hospital with "severe weakness and twitching." She expired within 24 hours. Toxicologic analysis showed the presence of 1.3mg/100 ml of lead in the blood and 1.85 mg/100 g in the brain.

Case Five

A 2-year-old girl was taken to a neighborhood hospital after 3 days of drowsiness and twitching of the eyelids. She was given penicillin for an ear infection and sent home. During the next 2 days she vomited and had loose stools, then developed generalized "twitching" and lapsed into coma. She was admitted to another hospital with a diagnosis of lead encephalopathy, but had a respiratory arrest and expired after 2 days, despite treatment with BAL and EDTA. Blood lead concentration was 218 µg/100 ml.

Case Six

An 18-months-old boy had a seizure after vomiting once. He was taken to a hospital ER where he was given "a shot" and sent home. After another convulsion he was brought to a neighborhood hospital where a resident physician considered lead poisoning in the differential diagnosis. X-rays showed "slight separation of the sagittal suture with equivocal evidence of increased intracranial pressure. Density of metaphyseal plates of the long bones had a normal appearance . . . No definite roentgen demonstration of heavy metal poisoning." Urinary coproporphyrins were negative, "which almost certainly excludes lead poisoning." A pediatric consultant interpreted the skull X-rays "negative for lead poisoning." Despite sedation and intravenous fluids of 1000 to 1200 ml daily, convulsions increased in frequency to every 5 minutes until the child expired 3 days after admission. Because of the negative urinary coproporphyrins and equivocal X-rays, LP as a diagnosis was rejected. However, toxicological analysis of the brain for lead yielded over 1000 µg/100 g.

Discussion

The symptoms of incipient lead encephalopathy are so tenuous, and so subtle in their progression, that they are easily missed. Sensi-

tive parents may describe personality changes such as refusal to eat or play, withdrawn behavior, constant crying and irritability, or frequent long naps. The ER physician, to whom both mother and child are usually strangers, may distrust the history and unintentionally dismiss such crucial information.

Vomiting was attributed to "upset stomach," "gastritis," and "gastroenteritis" in three of the cited cases, diarrhea was associated with vomiting in only one. Vomiting, progressing to seizures, was the herald of increased intracranial pressure in four patients.

The initial seizure in lead encephalopathy is usually afebrile, although fever may develop as status epilepticus supervenes. Certainly any infection from URI to meningitis may occur in association with lead poisoning, since the presence of one does not exclude the other. But vigorous treatment with intravenous fluids and transfusions may inadvertently increase cerebral edema in encephalopathy.

Lead poisoning is rarely included in the differential diagnosis of an acutely ill child, particularly before increasing intracranial pressure is discernible. This is an unfortunate omission since the rapidity with which cerebral edema develops is unpredictable, and respiratory arrest may follow on the heels of the first convulsion.

The most reliable test for diagnosis of lead poisoning is blood lead concentration, which takes 1½ to 3 hours for a laboratory to process, depending on the analytical technique used.

Possible Tests

Other tests that help to rapidly confirm the suspicion of lead toxicity are erythrocyte protoporphyrin, basophilic stippling, urinary coproporphyrin and X-ray of the abdomen and metaphyses of long bones. They require less than an hour, and when positive enable the physician to begin specific treatment with BAL and EDTA without further delay. However, these tests are not specific for lead, results are not consistent, and negative findings do not exclude lead poisoning. For example:

1. Basophilic stippling is present in only 60% of lead poisoned children.² Barnett states that stippling, although invariably found in bone marrow, is erratically found in peripheral blood smears.³
2. Erythrocyte protoporphyrin, recommended for screening by the Center for Disease Control,⁴ has not been sufficiently tested for correlation with blood lead concentration

over 80 µg/100 ml. It is not in use as yet in Illinois. Because of the wide range of values for positive results, with different values for differing methods,⁵⁻⁹ it lacks the greater precision of blood lead determination which is still required for confirmation.

3. Urinary coproporphyrin is often negative, even when blood lead concentration is over 100 µg/100 ml. Improper technique of coproporphyrin testing may be a factor.
4. X-ray of the abdomen is negative if all ingested material has been excreted; or if the ingested lead is not in a radiopaque medium such as paint, or if a shield obscures particles that have accumulated in the rectum.
5. Radiographs of long bone metaphyses are negative if blood lead concentration has risen rapidly over a few weeks; lead lines do not appear until two or three months after toxic levels are reached.
6. Radiographs of the skull may not show widening of sutures.
7. A history of paint ingestion may not be obtainable even when paint particles in the abdomen are demonstrated by X-ray.

Conclusion

There is a brief period during impending lead encephalopathy when symptoms are of sufficient consequence to bring the patient to the ER yet appear deceptively inconsequential. It is at this crucial moment in the progression of the disease, as lead poisoning emerges from quiescence, that clinical diagnosis may not always be adequate. The difficulties in the recognition of nascent lead encephalopathy require an approach that transcends the uncertainties of diagnostic acumen.

The Illinois Department of Public Health issued a notice March 19, 1975, to Illinois Poison Control Centers, citing a report estimating that 10% of accidentally poisoned children seen in the Cook County Hospital ER had concurrent blood lead elevations. It recommended that every child under 6 years of age brought into the hospital or to the ER for any acute poisoning have a blood lead determination. This practice should be extended to include every child under 6 years with possible lead exposure, within or outside the home, however innocuous the present complaint may appear. Severe lead poisoning will

continue to go unrecognized unless the hospitals undertake to screen all sick children for this insidious disease. ◀

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EKG

(Continued from page 364)

Answers: 1. E 2. E

The PR interval in lead II is 0.18 seconds (Normal 0.12-0.20). The QRS duration is 0.12 with right bundle branch block configuration. Pathologic Q waves are present in leads II, III, and AVF suggesting inferior wall myocardial infarction. ST segments in those leads are elevated making the infarct recent or if remote suggesting ventricular aneurysm. The T waves with right bundle branch block should be upright in lead V₅ and V₆. Inversion suggests other cause than right bundle branch block (primary T wave change). In this instance, lateral wall myocardial ischemia is probably responsible. The treatment should consist of monitoring and avoidance of increased vagotonic influences i.e., nasogastric suction, morphine sulfate and digitalis. Demoral for pain and diuretics for mild failure are better. Pacemaker insertion is indicated only if high grade of AV block develops.



medical legal review

Going Bare

To be Insured, or not to be, is That the Question?

An interview with ISMS Special Counsel

Rather than pay escalating liability insurance premiums, some physicians have considered dropping professional liability insurance and signing all their assets over to someone else in an irrevocable trust.

The theory for this is that there would be less incentive for patients and their attorneys to bring suit, since the insurance "pot o' gold" wouldn't exist.

To analyze the feasibility of this, IMJ asked Mr. Joel Edelman, Special ISMS Legal Counsel for the Task Force, to comment. He indicated that it isn't that easy, and the point implied by the question may be overly simplistic. Of course each member should rely on personal legal counsel in decisions of this nature and magnitude.

IMJ Is it possible for a member to sign away all assets in an irrevocable trust; will this protect these assets in case the member is sued and an award is made?

Counsel Yes, it is possible to set up such an irrevocable trust. However, this will not necessarily protect the physician who has, in effect, rendered himself insolvent. The conveyance could be set aside by the court if it is determined that the action was taken to defeat the claim of a current or prospective creditor.

IMJ But wouldn't this deter attorneys from filing a client's suit knowing there wouldn't be a quickie settlement check from the insurance company?

Counsel When a law suit is filed, one of four things will occur:

1. It will be settled out of court for an amount agreed upon by the parties;
2. It will be non-suited if there is a high probability the plaintiff can not prevail on the basis of fact;
3. It will be tried and a verdict will be rendered for the doctor, against the plaintiff;
4. It will be tried and a verdict rendered in favor of the plaintiff, against the physician.

The existence or non-existence of insurance shouldn't enter into a plaintiff attorney's review of a possible cause of action, and information about insurance coverage is not admissible at trial. Therefore, in this regard nothing would be gained by not having professional liability insurance.

IMJ Let's suppose, though, for sake of argument, that the physician can and does drop his coverage. If an award is made against him, what happens?

Counsel If the plaintiff isn't successful in setting aside the conveyance referred to earlier, this would not reduce or stay an award. The judgement would still be effected. It would be possible that future earnings would be attached, liens would be placed against future possessions and other actions taken which would, in effect, keep the physician in a perpetual state of bankruptcy.

IMJ Are there any other significant consequences a physician could face if he chose to terminate his coverage?

Counsel Potentially, he could lose his medical staff privileges at his local hospital, if hospitals are successful in the present trend toward requiring malpractice insurance coverage as a prerequisite to staff appointment. In Illinois, we are subject to joint and several liability; meaning any party to the lawsuit can be made to bear the full brunt of the judgement awarded. To protect their assets, hospitals would have the right and perhaps the duty, to require their doctors to protect themselves through insurance, so that in the event a lawsuit is lost all parties can share in the payment of the award.

IMJ If the physician doesn't carry insurance, and sets aside a stipulated amount monthly, couldn't he become self-insured?

Counsel That's another tack that might be considered, and might be ill-advised. When a suit is brought against a physician some basic numbers should be noted. The average cost of defense for a malpractice claim suit, through trial, may be something over \$20,000. Then there are legal fees for interrogatories, depositions, discovery and investigation, expert witnesses and so forth. If the doctor loses the case, not only will he have to pay all this, but the cost of an award and the plaintiff's legal fees too. Even for a small award, this could add up to a considerable amount. Assuming a physician puts

away \$10,000 a year to be self-insured (which could not then be assigned someone else by some transfer mechanism), one case might wipe out four to five years of cash reserve accumulation. Such a mechanism has distinct tax disadvantages, and this cost could not be passed on to the consumer as a legitimate expense in the "cost of doing business."

IMJ What, then, is your advice on this matter? Should a physician even consider dropping liability insurance or becoming self-insured?

Counsel It is unfortunate that the current state of affairs seems to require consideration of such radical alternatives. No, I do not think a physician should consider going it alone, without insurance coverage.

Malpractice insurance is like any other form of insurance. It is a mechanism to pool the funds of a group of people subject to potential losses, to spread the risk, so as to have money available to pay actual losses. I'd suggest the physician answer these questions before even considering dropping liability insurance;

1. Am I and my family adequately protected without life insurance?
2. Am I and my family adequately protected if I do not have disability insurance?
3. Do I need insurance on my personal residence (comprehensive and personal liability)?
4. Should I operate a motor vehicle without automobile liability insurance?
5. Do I need personal property insurance? Fire insurance? Business overhead insurance?

Obviously, realistic objective answers will indicate that insurance is essential.

My advice to members of ISMS would be that very serious consideration be given any action of this nature. It may seem to solve one problem from a cursory viewpoint, but the consequences could be devastating.

MEN OF MEDICINE, 1776-1976

Medicine a Century Ago

BY TOM KIRKWOOD, M.D./LAWRENCEVILLE

Medical knowledge was becoming well enough organized by 1850 to initiate the discoveries leading to the progress in the science which we take for granted today. Many important observations had been recorded over the preceding centuries, some valid and some otherwise. A mass of more or less disorganized information had been accumulated. This provided the foundation and pointed the way to the far-reaching and often amazing advances of the next century, but these advances were yet to come. The pieces of the puzzle were there awaiting minds capable of putting them together. Medical knowledge is never static. We still have many puzzling problems to be solved. This is what makes the science and practice of medicine so interesting and intriguing.

During many of the centuries preceding this period, medicine had usually been in a straight jacket hemmed in by tradition. To question some of the beliefs was heresy. New ideas were not welcome and often met with violent opposition. Those who had the courage to challenge some hide-bound idea often paid a high price in one way or another, for their audacity. The following outline only attempts to point out some of the highlights which helped to illuminate the path of medicine from 1850 to 1900.

Discoveries Before 1850

In the few decades before 1850, Richard Bright described the chronic nephritis which bears his name. Graves described goiter and Stokes certain types of heart disease. Stokes was also studying cholera, typhus, and typhoid fever.

Addison was studying anemias and gave us our first picture of pernicious anemia. In addition, he was investigating diseases of the suprarenal glands and gave his name to Addison's disease. We now have cortisone to control this serious glandular disease and the patient can live a fairly normal life. Watson, Oliver Wendell Holmes, and Semmelweis were writing about child bed fever and contrary to the general opinion of the period, they believed this disease was contagious. Laennec invented the stethoscope in 1819 and Kelvin the clinical thermometer in 1849. The latter was so large that it had to be carried in a wooden case under the doctor's arm. The small ones we use today did not come into use until around 1880. The hypodermic syringe was invented in 1852. Doctors W. W. Keen and Tyson served through the Civil War without either a syringe or a thermometer. Doctor Billings had both. Ether and chloroform came into use around 1845, making surgical progress much more rapid and humane.

The French physician, Pollender, saw anthrax germs in the blood of a sick sheep in 1849, but did not suspect that they caused the disease. Doctor Daniel Drake of Cincinnati thought that cholera could be caused by "small animals." By 1865, Doctor Davaine of France was able to prove that the germs which Pollender saw in 1849 were the actual cause of anthrax. However, Doctors Pasteur and Koch were the real founders of bacteriology. In 1850, no one had ever heard of a germ or imagined that such organisms could cause disease with the exception of Doctor Drake and his "small animals."

Bacteria Found to Cause Diseases

A few years later, Pasteur was busy studying fermentation in wine and beer. He found that by heating these liquids to between 55 to 60 degrees centigrade, he could stop the fermentation without altering the taste of either. He believed that the yeasts he found in the wine and beer were living forms and that they came from germs. He found also, the living organisms which were killing the silk worms in France and ruining the silk industry. He proved that spontaneous generation did not occur, thus exploding a lot of theories believed by other scientists of that era.

He discovered the staphylococcus which causes boils and abscesses and the streptococcus which causes "bloodpoisoning." He also discovered the cause of chicken cholera and prepared a preventive inoculation for the disease. In 1881 he prepared an anthrax vaccine which protected animals against the disease. In 1886 he developed a series of injections which prevented rabies in those who had been bitten by mad dogs and other rabid animals. These protective inoculations, preceded by Jenner's vaccine for small pox in 1796, prepared the way for all of our modern vaccines which now promise to eliminate most of our contagious diseases. His method of stopping fermentation in beer and wine was named "pasteurization" and since then has been used to stop the growth of bacteria in milk and other foods.

Koch meanwhile, was carrying out a number of important investigations in the kitchen of his home in Germany. These had to do with growing cultures of various disease germs on culture media and in identifying and separating the colonies, thus producing pure cultures. He also discovered and prepared foods on which various types of bacteria made the best growth. This enabled him to reproduce the disease each germ was supposed to cause and to settle definitely any arguments concerning what each newly discovered germ was capable of doing. In 1883 he discovered the cholera vibrio and showed that it was usually spread by drinking contaminated water. The discoveries of Pasteur and Koch and the systematic methods of investigation originated by the latter, led to the identification of numerous other bacteria and to the description of the diseases which they caused. Most of this work was done between 1870 and 1890. Many other investigators contributed to these discoveries and the way was paved for the advances in prevention and curative medicine which we enjoy today.

Antiseptic Surgery Thought Ridiculous

Lord Lister of England starting in 1866 was formulating his ideas concerning antiseptic surgery. No one at that time had identified the cause of surgical infections, but his antiseptic methods worked and were slowly accepted by other surgeons. For several years after this and even after the identification of many bacteria, many physicians and others thought that all the fuss about germs and infection was ridiculous. If these small germs did exist, which many doubted, how could anything so small cause a serious disease? By 1880 many abdominal operations were being done and were relatively safe. The first appendix was removed by Fitz in 1886. McDowell had removed ovarian cysts successfully in 1809 and later the Atlee brothers of Lancaster, Pennsylvania, removed 465 ovarian tumors between 1843 and 1883. These operations were safer than those on the upper abdominal organs. John L. Atlee did 78 of these operations with 64 recoveries. Before 1845, these operations were done without anesthesia. Instruments and dressings were not sterilized until after 1875. Doctor Dudley of Transylvania University in Lexington, Kentucky, removed a cataract in 1886, ligated the subclavian artery, trephined the skull for epilepsy in six cases and during his career did over 200 lithotomies. The first one hundred lithotomies were done without a death.

Theory of Spontaneous Combustion

Doctor Daniel Drake of Cincinnati was one of the outstanding physicians of the United States in 1850. He made many outstanding contributions to our medical literature. However, he was taken in by one local belief or superstition, that of spontaneous combustion. Many believed that a fat alcoholic man would catch on fire if he came near a lighted candle or an open fire. Sparks also could start the combustion. According to the stories, the victim would be completely consumed. These stories seemed so authentic that Drake seemed to believe it could happen. He was Professor of Medicine in schools in Lexington and Louisville, Kentucky; Cincinnati, Ohio; and Jefferson Medical College in Philadelphia at various times in his career. He wrote a large, two volume, treatise on "Diseases of the Valley of North America."

Surgeon's Speed Important

Before 1870 most of the operations which the average surgeon had to do were repair of ac-

cidental wounds, opening abscesses, doing amputations, and setting fractured bones. Before 1845, these were done without anesthesia other than large doses of whiskey and opium. Many years ago, an old physician told me about an operation which was done on the stage of a theater before a large group of doctors at a medical meeting. His father went to the theater about noon with a good supply of whiskey. He gave the patient a liberal dose every fifteen or twenty minutes and by 2 P.M., the man was well anesthetized. He was then strapped to the table, but still struggled when the amputation began. Several husky men held him down until the leg was quickly removed. A surgeon was judged more by the speed with which he operated than by anything else. A leg could be removed in a couple of minutes and the more rapidly it was done, the quicker the suffering was over.

Illness Overruns Country

In 1850, this country was full of people ill with typhoid, malaria, typhus, erysipelas, and cholera. Respiratory disease and rheumatic diseases were everywhere. In the 1700's, the Jesuit priests had noted that the Indians had chills in the summer. They thought the disease was caused by eating new corn, squashes, and melons. In 1789, Major Hamtranch reported forty nine soldiers ill with remitting fever (malaria) in Fort Knox, Indiana, at Vincennes. A few years before this, Commander George Buttrick of Fort Chartres near Kaskaskia reported that everyone in the garrison excepting one sergeant, one corporal, and nine men were ill. He said "during the last month (September) we have put into the grave three officers, twenty five men, twelve women and fifteen children." In 1820 Vincennes reported that one third of the population was confined to bed with the fevers. People were too ill and weak to harvest their crops. Milk sickness was common and deadly. With the exception of peruvian bark or quinine for malaria, and opium for pain, most of the available drugs were next to useless, or even harmful. None were standardized.

Medical Education and Licensure

What about the doctors and medical education? Doctors of course by present day standards were poorly prepared. Medical education was sketchy and chaotic. Some young men "read machine" under the supervision of older doctors called preceptors. Some went to college where

they usually took two courses of sixteen weeks each. The second sixteen week course was a repetition of the first. A common school education helped, but often was not required. As a matter of fact, from 1825 to 1877, anybody could hang up his shingle in Illinois and call himself a doctor without any education.

After 1877 Illinois required an examination and registration. The organization which pioneered in demanding registration and proper educational preparations, was the Lawrenceville Aesculapian Medical Society organized here in 1845 and 1846 and incorporated in 1847. This society, now called the Aesculapian Society of the Wabash Valley, was also responsible for legislation providing for the organization of the Illinois State Department of Public Health. Rush Medical College required its graduates to serve under preceptors for a certain period of time before receiving their diplomas. The first lectures on bacteriology in Illinois were given at the University of Illinois in Urbana in 1877 by Doctor Thomas J. Burrell. Doctor Curtis, Professor of Hygiene at the College of Physicians and Surgeons in Chicago, proposed a class in bacteriology in 1882. This met with so much opposition that he would have been removed from the faculty had it not been for the support of the famous surgeon, Nicholas Senn.

Many Systems of Medicine

In addition to the educational difficulties, there were many different systems of medicine taught in the various schools. Each system held that its methods were the only genuinely scientific ones. In 1883 there were seventeen different kinds of practitioners in Indiana and Illinois. In 1877 when registration was first required, Illinois had 7400 doctors. Half of these had no diplomas. Four hundred and ninety were using fraudulent credentials and some were practicing under assumed names.

The four main medical groups were the Regulars, the Botanics, the Homeopaths, and the Eclectics. The Botanics in turn were divided into three groups—the true Thompsonians, the Physiochemicals, and the Reformed Botanics. There was little difference between the reformed Botanics and the Eclectics.

The Regulars

The Regulars believed that the blood contained the cause of all disease. They therefore

believed that bleeding and purgation would remove the cause and cure the disease. They used large doses of calomel and jalap. They removed large quantities of blood. President Washington's death could have been due to excessive bleeding for a throat infection which he had.

The Botanics

The Botanics and herb doctors, noting the evil effects of drastic bleeding and purging with calomel, believed in using drugs of vegetable origin only. They were against all mineral drugs using only roots and herbs. Lobelia was a favorite drug. It belongs to the tobacco family and in large doses was about as dangerous as the calomel used by the Regulars. They ignored the fact that many drugs of vegetable origin are some of our most deadly poisons.

The Physiomedicals used the same drugs as the Botanics and added sweats and electric treatments of various sorts.

The true Thompsonians stated that all bodies were composed of four elements—earth, water, air, and fire (or heat). As long as these elements were in balance, one was healthy. If out of balance illness occurred. Establishing the proper balance cured the patient. No person, Thompson said, ever died because of heat. He said that one always got cold before passing away. To prevent death, warm the patient up. Therefore, Thompson used heat and a variety of lobelia compounds, numbered from one to ten. To ward off the grim reaper he gave lobelia No. 1 and No. 2 to warm up the stomach, and to remove obstructions from the body. Lobelia No. 3 removed cankers from the alimentary canal. In 1813 the United States Patent office gave Thompson a ten year exclusive patent for the use of his drugs and later extended this for another fourteen years.

Thompson also published a book on the use of his methods which he sold for twenty dollars. This included a permit to practice his methods of medicine. This book and permit enabled many an uneducated man to begin medical practice without further adieu. Thompson said that any preliminary education was not only useless, but could actually be a hindrance to the practitioner. He reported one of his cases. A child had been bitten by a spider. It was having fits. He gave it a teaspoonful of bear oil, and followed this by an injection of lobelia No. 2 and No. 3. He then sponged the child with lobelia No. 6. He next gave it a teaspoonful of tincture of lobelia. He then steamed the

child. The medicine did not operate. He waited one and one-half hours and did not want to do anything else, but being over persuaded, he started all over again, repeating the entire procedure. The child finally vomited and relaxed. The fits ceased. By morning one could not tell that it had ever been ill.

The Homeopaths

The Homeopaths like the Botanics, represented a reaction to the violent methods used by the Regulars. Their doses of medicine were extremely small, so small in fact, that they could not possible do any good, but also so small that they could not do any harm. The Homeopaths said that a coffee bean dropped in the Ohio River at Cincinnati would be properly diluted when it reached New Orleans.

The Eclectics

Eclectics claimed that they had selected the best methods used by all the other schools of medicine and had discarded all of the bad features used by these groups.

Doctors Feud

There was a constant squabble and often open warfare between all of these medical factions. Doctor Carter, a Lawrenceville Regular and Doctor Hall, a local Physiomedical were always feuding. Once when Doctor Carter saw Doctors McCleave and Hall coming up our present State Street hill as they returned from Bridgeport, he rushed into a near-by store, picked up an iron weight from a set of scales, ran out and threw it at Doctor Hall. It struck Doctor McCleave in the chest, breaking some ribs. The local paper reported a "conflict between calomel and lobelia. Calomel wins."

These arguments were often reported in the local papers. This furnished considerable amusement, but as a result, the general public did not have much confidence in any of the factions.

As a result of this lack of confidence and the difficulty of getting a doctor in rural areas, many people fell back on using folk remedies, or those recommended in books written by various doctors giving advice on self medications in the home. Doctor Carter had a book of this type which went through many editions. Doctor Gunn was another favorite author. I have two of these books, one by Doctor Gunn published in 1838 and one by Doctor R. V. Pierce of Buffalo. The latter, published in 1895,

is the 59th edition and had been in use for years. Diphtheria antitoxin was perfected in 1894 by Von Behring. Pierce recommended its use in this 1895 book. It was used in St. Louis also in 1895. Doctor Pierce has numerous testimonials in his book from patients whom he had snatched from the jaws of death.

Cause of Fevers Argued

Meanwhile, from the 1800's until the 1880's, the arguments went on about the cause of fevers. Doctor Rush of Philadelphia had claimed that all fevers were caused by the same thing and Doctor Crawford agreed. This cause they said was a "miasma," meaning something contained in the noxious vapors arising from rivers and swamps. The death rate from fevers was high in our area. Few people lived more than fifty years. The death rate in children was terrific. Fifty percent died before reaching the age of five years.

A young man stopped at a canal town in Ohio. He told a group of Irish laborers standing around a whiskey barrel that one fourth of them would die of small pox within three weeks. This was purely a guess, but it happened. The young man was so surprised by this prediction and its outcome, that he became a doctor and had a large practice. Malaria was everywhere. Laveran had described the malarial parasite in 1880, but it was not until 1898 that Ross found out that this parasite was carried by the mosquito. In the 1890's many of our people still thought that water melons had something to do with causing the disease. After all, melons and malaria arrived during the same season, so couldn't there be a connection between them?

Various Treatments

The common run of doctors used 25 or 30 drugs. The Regulars depended on calomel, opium, nitre, glaubers salts, Dover's powders, jalap, and peruvian bark. After 1840, quinine, the active principle of peruvian bark, was available. The Regulars often gave enormous doses. Ten grains of calomel and ten of jalap was a common dose. One doctor in Lexington, Kentucky, gave a pound of calomel in one day to a cholera patient. The man survived in spite of the disease and the medicine.

There were dozens of other drugs. None were standardized and what was known about any of them was purely empirical. At first, quinine

cost fifty dollars an ounce or about one dollar a dose. As late as 1845 or 1850, it sold for eight dollars an ounce. Fat steers were selling for \$7.50 each at the same time. Today if it cost one the price of a fat beef animal for fifty doses of medicine, it would make one feel that our present antibiotics were cheap. Patients were bled until they fainted. A Doctor Francis of New York City had two and one half gallons of blood removed from his veins within a few days—and recovered.

A favorite prescription of the Botanics contained one gallon of the best fourth proof West Indian rum, one gallon of molasses, a quart of lobelia No. 6, two ounces of cheyenne pepper, and a few other things. One half glass of this mixture three times a day was a preventive of disease, and as a cure, one took one half glass every hour. This was used for all kinds of disease. If it failed to cure, it would at least allow one to die in a happy mood.

Doctor Bretonneau, a French physician, decided in 1829 that typhoid and typhus were different diseases, but in 1880 many doctors here and abroad still believed that all diseases with fever were due to the same cause.

Folk Medicine

In addition to the remedies prescribed by various groups of doctors, the people depended on many home remedies. They had various charms and faith cures. There were many superstitions. They thought a seventh month child was supposed to possess unusual curative powers as did the seventh son of a seventh son. An eight month baby always died according to superstitions. If a baby crawled between the legs of a table or chair, or through a window, he must be made to crawl back immediately over the same route or his growth would stop. This would cause "short growth." If this happened, his foot was measured. If his height was less than seven times the length of his foot, he definitely had "short growth." This could be cured by passing him through a loop of the string with which he was measured or by passing him through a horse collar three times.

A baby could also be "liver bound." The old ladies knew how to cure this. If a baby looked into a mirror before he was nine months old, his life would be full of trouble. Cutting his hair before he was a year old would shorten his life. Rocking his cradle when it was empty would give the baby the colic. If he had croup, one could cure it by hanging the right foot of a

mole around his neck on a blue thread. Better yet, take a hair from his head, place it in a hole bored in an ash or oak tree. This would stop his croup until his height reached the place where the hole was bored, then more croup. If he had fits, the leg of a toad placed in a bag, and worn as a necklace would stop the trouble. Fits caused by worms, could be cured by pumpkin seed tea. In whooping cough a bag filled with ground bugs and worn as a necklace would cure it as would white ant tea, or passing the child through a horse collar three times. Don't leave a house cat in the room with the baby. The cat will steal the baby's breath. Freckles can be cured by dew gathered in May or by stump water. A bag of asafoetida worn around the neck was a sure preventive for everything. It would even keep people away.

Doctor Carter was particularly good at treating the "Hypo" which was another name for a nervous depression. Doctor Selman was especially good in taking care of people who suffered from the "incubus," another name for nightmares. Galvanic belts and Perkin's tractors would cure anything, according to the advertisements.

Important Folk Remedies

Folk remedies were as numerous as were the charms and superstitions. Most were worthless, but some have been very important. Withering learned how to use digitalis from an old grandmother in Shropshire, England, in 1785. Dr. Jenner found out about small pox vaccination from milk maids in England in 1798. Captain Cook of the English navy showed us how to prevent scurvy by using fresh vegetables and juices about the time of our Revolutionary War. Before that time, scurvy had killed hundreds of sailors and passengers on long cruises. The women of Norway and Sweden had found out that cod liver oil would prevent or cure rickets. This was years before we knew anything about vitamins. The New England women knew that liver soup would help anemia, long before Minot of Harvard University used liver injections for pernicious anemia. The Chinese knew that ephedrine would help hay fever and asthma and we took it from there. The Catholic priests found the Indians of Peru using the bark of the cinchona trees to treat malaria—this is where we got the peruvian bark we used for malaria before quinine was isolated from this same bark. The Chinese used strong tea in treating burns long before we tried the tannic

acid treatment for the same purpose. People used scraped, moldy, apples applied as a poultice over infected eyes and it helped to cure the infection. We now know these moldy apples contained penicillin. Others cures or treatments will emerge from the same source as time goes by.

Conclusion

From the observations and deductions of the plain people and the investigations of the doctors and chemists of the past two centuries, the basis was gradually laid for the enormous increase in medical knowledge occurring after the discovery of anesthesia, surgical antiseptic methods, and the bacterial causes of many of our diseases. We are inclined to think that our present medical methods are all due to recent discoveries made in the 1900's. Our present medical methods and practices are far removed from what was being done in 1850 to 1875, but please remember—as crude as some of the methods and practices seem to us—without the observations, discoveries, and investigations done during that era, our present scintillating discoveries would have been impossible. Also, imagine how antiquated what we are doing now may appear to those who follow us in 2050.

We all know about our achievements since the 1890's: the X-ray, the cardiograph, vaccinations to prevent typhoid, tetanus, and many other diseases. Ehrlich's discoveries, including his magic bullet, arsphenamine, for syphilis, Herick's description of coronary occlusion in 1912, Banting and Best's insulin for diabetics, and the use of liver extract for pernicious anemia by Minot. It all came in rapid succession. These were followed by the sulfonamides in the 1930's and by penicillin and many other antibiotics from 1940 on. These comprise only a few of our recent advances. Many improved surgical and diagnostic instruments and methods have been developed during this era. Our public health services have made great contributions to the conquest of disease.

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It Only Happens Once in 50 Years

BY M. E. ROLENS, M.D./SPRINGFIELD

No doubt my retired friends can recall things that only happened once in their professional life.

The most spooky event in my life was a post-mortem cesarean section. In itself it isn't so much. This case was a woman, eight and one-half months pregnant, with flu-pneumonia. She was a devout Catholic and requested that the baby be baptized. It was a stormy, cold January night. At 3:00 a.m. in the morning, death was very near. The Superior Sister of surgery set up the necessary tray. The room had a dim light, the window rattled, a candle burned low and fluttered at the bedside. The perfect setting for a horror movie. At the last heartbeat, I opened the abdomen and uterus and delivered a seven pound boy. It soon gave a feeble cry. The baby lived until twelve noon the same day. In those days we had no intensive care facilities for infants, nor any exchange transfusions. If this had happened in 1975, the child probably would have lived.

Another case, when I felt embarrassed, occurred while making a call to a home where I had recently delivered a new baby. On the first visit everything was okay. I was out of town three days and made my second call on the fifth day. Being well acquainted, I just gave a couple of knocks on the door and walked in—into a funeral service! The baby had died. There I was with my black bag in my hand. I retreated hastily. Then I noticed a wreath on the other door. Dr. Compton had signed the death certificate and

hadn't told me.

Another time a drunk husband decided to kill me with a large ice pick. A month before this incident, I was called during the night to attend a four-week-old baby, delivered by another doctor. Upon arriving, I found a plump infant sleeping soundly and breathing normally. I had been called because the baby was choking and having difficulty breathing. My examination found the lungs clear. So I measured out 30 teaspoons of water and added one tablespoon of elixir of pepsin. I prescribed one teaspoon every three hours of this mixture while the child was awake. You had to give medicine to get paid. The baby awakened, took one dose of medicine and died 15 minutes later. A crib death?

One month later I was called again. The baby's father had stabbed his wife in the buttocks twice with a large ice pick. They lived in a three-room house, shot gun style; front door, front room, bedroom, kitchen and back door. After I had dressed the woman's punctures, her husband came toward me with the ice pick. "You gave my baby medicine and killed her. Now, by God, I kill you." The wife said something in Lithuanian. I rushed to the bedroom shouting, "Mrs. Lawrence, you should never talk that way about your husband." He said, "What she say?" I replied, "I am ashamed to repeat it." He rushed to his wife and I rushed out the front door. I took off in my T-Model, just hitting the high spots in the frozen dirt street.

Call for Bicentennial Contributions

This is the second in a series of Bicentennial articles which will appear throughout 1976 as the Illinois State Medical Society's commemoration to this Bicentennial year. We hope that you have enjoyed reading the articles about "Early Medical Practice in Illinois, Before 1800," "Medicine in the Early 1900's," and all the rest.

Anyone interested is encouraged to submit articles about the history and lore of medicine and its practice in Illinois during the past two hundred years. Anecdotal material as well as feature articles are acceptable.

Several areas of interest have been identified, not to the exclusion of others:

1. Biography—earliest physicians; colorful characters; men of distinction and accomplishment; old diaries reviewed; great men.
2. Medical institutions—schools; hospitals.

3. Great discoveries and the improvement of quality of life by physicians through social action and clinical investigation.
4. Description of medical practice in early days.
5. Oddities of medications or practice.

Manuscripts submitted will be reviewed by the Publications Committee. Material should be short and concise (i.e. articles 7-8 pages, anecdotes 3-4 pages) and will be reviewed with an eye to quality, appropriateness to the Bicentennial, authenticity, length and breadth of interest.

We are also earnestly seeking pictorial material. We need pictures of early hospitals, operations, famous men of medicine, and anything else which is appropriate to illustrate the "History of Medicine" in Illinois.

Send contributions to Jacob E. Reisch, M.D., ILLINOIS MEDICAL JOURNAL, 55 E. Monroe—Suite 3510, Chicago 60603.

Results of a Survey of Physicians' Offices in Northwest Illinois

BY JOEL B. COWEN, M.A./ROCKFORD

During the summer of 1974, the Office for Community Health Research, Rockford School of Medicine (University of Illinois) assessed, through a mailed questionnaire, the physical characteristics and staffing patterns of physicians' offices in Northwest Illinois (Boone, Carroll, DeKalb, Jo Daviess, Lee, Ogle, Stephenson, Whiteside and Winnebago Counties). The information was derived for use by three sponsoring organizations.

The Area Health Education System, Region 1A (University of Illinois) will utilize the data to help in improving the availability and quality of nursing and allied health manpower in Northwest Illinois. The Rockford School of Medicine (RSM) will use the data for an accurate detailed picture of ambulatory care in the region. RSM utilizes community physicians in their offices as teachers in one major portion of the curriculum. Therefore, knowledge of the structure of area physician offices is vital to the educational program. The Office for Community Health Research (OCHR) assesses the impact of RSM on the local health care system of which physicians' offices constitute an important element. The questionnaire was approved by the Winnebago County Medical Society with transmittal to the other medical societies in the region for review and comment. Full results are available to each medical society for use by its members.

Methodology

Questionnaires were mailed to 198 physician units in Northwest Illinois. A unit is a group or set of physicians which share personnel and/or equipment at a single physical site. No legal arrangements such as corporation or partnerships are implied by this grouping. Only physicians maintaining a private office were included. Hospital-based physicians or administrators were excluded. The list of units was developed from OCHR physician listings which are based on information from AMA directories, local medical societies and telephone books.

Any person in the office who was familiar with

the requested information was allowed to fill out the form. A business reply envelope was enclosed for response. Telephone follow-up was used about one month after the mailout to enhance response.

Response

Of the 198 medical units surveyed, 151 or 76.3% responded. However, responding units contain 87.2% of the office based physicians in the region, 85.9% of those in primary care and 89.2% of those in non-primary care. Complete response was obtained from units with specialists in Pediatrics (22), OTO (11), Dermatology (7), Cardiology (3), Neurology (3), Pathology (2) and Occupational Medicine (1). Psychiatry and GP/FP had the lowest response, with 72.2% and 82.1% respectively. Response by county varied from a low of 66.7% in Boone County (6 of 9) to 100% (4 of 4) in Jo Daviess County.

Results

A. Office Characteristics

This section of the questionnaire sought to assess the characteristics and organization of

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medical offices in the area. Results divided office units into those offering *any* primary care (N=92) and those exclusively with non-primary care (N=59). Primary care offices may also offer non-primary specialties. Primary care was defined as General Practice/Family Practice, Internal Medicine or Pediatrics.

Size of Unit

The "typical" medical unit in Northwest Illinois has one physician, 3.4 patient examining rooms and an *active* individual patient load of 4,350 persons. These are all median figures. That is, half are higher and half are lower.

Table 1
Examining Rooms Per Facility

Exam Rooms	Total		Cumulative Percent
	Number	Percent	
0	9	6.2	6.2
1	11	7.5	13.7
2	28	19.2	32.9
3	29	19.9	52.8
4	22	15.1	67.9
5-10	28	19.2	87.1
11-30	11	7.5	94.6
31+	8	5.5	100.0
TOTAL	146	100.0	
No Answer	5		

The average number of doctors/unit is 2.1. There are eight facilities in the region with over thirty examining rooms and also eight facilities with 20,000 or more patients. One-fourth of all medical offices claim not to know the number of active individual patients using their facility.

Table 2
Active Patients Per Facility

Number Patients	Total	
	Number	Percent
Less than 1,000	24	16.7
1,001-2,500	31	21.5
2,501-5,000	23	16.0
5,001-10,000	11	7.6
10,001-20,000	10	6.9
20,000 +	8	5.6
Don't Know	37	25.7
TOTAL	144	100.0
No Answer	7	

Organization of Unit

Patient files are, for the most part, kept in sequence alphabetically by surname. Among the 151 units, 126 or 86.3% use this method while 13.7% file numerically by patient number. Of

those using patient numbers, virtually all establish their own numbering system rather than using social security or other established systems. Two-thirds of all units keep files by individual, while one-third group persons by family or household. Units with primary care are more likely (44.3%) to create family groupings than non-primary care units (18.5%).

One of every five medical units codes diagnoses by using a numerical system. Of these 31 places, 12 use ICDA or H-ICDA, five use Royal College of Physicians and 14 use other systems. Computerized records or billing are used by 22 (14.6%) sites. Most (13) are processed off site, but five have their own facility and two have terminals. The problem oriented medical record is used by all physicians in 16 (10.6%) places, with some physicians using the POMR in five (3.3%) medical offices.

Lab and X-ray Facilities

Forty (43.5%) of the 92 reporting primary care offices have no X-ray facilities in the office. About half of the units with primary care are equipped to perform X-rays on chests and extremities, about one-third can do sinus X-rays, skull films and spine series. Only eight offices with primary care, presumably the larger medical offices, have GI series X-ray capabilities. Non-primary facilities run slightly lower. (See Tables 3 and 4.)

Table 3
X-Ray Facilities in Medical Offices with Primary Care

X-Ray Facilities	Primary Care	
	Number	Percent
No X-Ray facilities	40	43.5
Chest X-rays	43	46.7
Extremities	47	51.1
Sinus X-rays	30	32.6
Upper G I Series	8	8.7
Lower G I Series	8	8.7
Skull Films	29	31.5
Spine Series	29	31.5
TOTAL UNITS	92	

The proportion of offices with primary care which performed different types of laboratory tests in Region 1A was similar to the results found in a national survey of physicians' office laboratories (Bureau of Quality Assurance, Dept. of HEW, March 1975). Some confusion in interpreting results could result from the ability of an office to collect samples (as GC culture), but having final processing of the culture at another office or at the Health Department.

Interpreting results of laboratory tests avail-

Table 4
Lab Test Facilities in Medical Offices
with Primary Care

Lab Tests	Primary Care	
	Number	Percent
Urinalysis	79	85.9
Blood Sugar	55	59.8
CBC	50	54.3
Stool for Blood	49	53.3
Pregnancy Test	44	47.8
Throat Culture	42	45.7
GC Smear	42	45.7
Pap Smear	37	40.2
Mono Test	36	39.1
GC Culture	33	35.9
Urine Culture	26	28.3
Others specified	25	27.2
Protime	22	23.9
VDRl	18	19.6
SMA 12	15	16.3
SMA 26	10	10.9
TOTAL UNITS	92	

able for non-primary care physician offices would have to be done with greatest care because of the varied nature of the group.

B. Employment

Staffing Patterns

Study respondents employ 1,549 employees, 1,097 full-time and 452 part-time or 1,323 Full-Time Equivalents (FTE's). Since respondents represent 87% of all area physicians, true employment in physician offices within Northwest Illinois is about 1,500 FTE's or nearly 2,000 FTE's if physicians are included.

RN's make up the largest single group employed in doctor offices, the 234 FT and 100 PT RN's make up 26.0% of total employment in FTE's. Next in size are medical secretaries (148 FTE) and Receptionists (140 FTE). Clinical positions account for 584 full positions, clerical for 525, administrative 96.5 and maintenance 117.5. It is interesting to note that clinical employment constitutes only 44% of physician office staffs. In fact clerical/administrative positions total more (47%) than clinical. This seems to indicate that more persons are needed in most medical units to handle patient records and transactions than delivery of clinical care.

Employment of the more common occupations per physician are 1.0 nurse (0.8 RN, 0.2 LPN), 0.4 medical secretary and 0.4 receptionist. Total employment per physician is 3.7 persons, broken down as 1.6 Clinical, 1.5 Clerical, 0.3 Administrative and 0.3 Maintenance.

Clinical Education

Thirty-nine units, 25.8% of all medical offices, participate some way in health education through use of their office for clinical training. Seventeen programs are involved, the largest by far being the involvement of medical students from the Rockford School of Medicine.

Staffing Needs and Expectations

At the time of the survey, only 13.5 positions were unfilled, constituting one percent of physician office positions. This seems to be a relatively low rate for positions budgeted but unfilled at any point in time. Of the 13.5 open jobs, 5.5 were for insurance clerks. Clerical positions constitute ten of the 13.5 open jobs and clinical areas (nurses, medical assistants) the other 3.5.

Medical offices were asked what *new* positions they expected to hire within two years. It should be noted that expectations and realizations are often quite different. Nevertheless, these figures do indicate intended directions for hiring. Expected additions total 137.5 positions or a growth of about 5% a year. Nursing, by far, is the proposed area of expansion accounting for three-fourths of the new slots. By specific vocation, new positions expected in the two-year period were: RN (65), LPN (30), Medical Secretary (11.5), Insurance Clerk (30), Medical Assistant (6.5), and "Other Clerical" (6.0). Greatest percent growth is expected for LPN's—whose use is expected to grow by nearly 50% in doctor offices.

Turnover and Hiring Difficulties

Relative to other health care agencies, turnover in physician offices is minimal. Actual turnover rates are: Nurses 3.7%, Other Clerical Employees 3.7%, and Secretarial/Administrative 7.0%. Most units experienced no turnover within these individual categories. For nurses, 84% of physician offices with nurses had no turnover. Many respondents stressed a lack of turnover, often citing no change in personnel for periods of ten or more years. One unit claimed no employee turnover for twenty-five years, another for twenty.

"Which of the specific positions in your office do you find the most difficult to fill?" was a question posed to questionnaire recipients. Leading responses were Medical Secretary (12) and Receptionist (10). Asked what positions caused the most difficulty with turnover, responses were again similar, as follows: Receptionist (9),

Medical Secretary (4). Overall, when data for difficult to fill, currently unfilled and high turnover are analyzed together, the clerical positions—medical secretary, receptionist and insurance clerk—predominate. These positions would seem to need either more training, better training or redefinition. Open-ended comments on turnover most commonly mentioned the need for persons trained in:

1. personal relationships with the public, friendly, and organized.
2. office specifics including medical terminology and insurance processing, especially Medicare and Public Aid.

Table 5
Employment per Hundred Physicians by Position

Position	Number Persons Employed Per 100 Physicians
Clinical Positions	161.3
Nurse: RN	78.5
Nurse: LPN	16.5
Medical Assistant	15.7
Lab Assistant	12.4
X-Ray Technician	18.5
Pharmacists	4.6
Pharmacist Assistant	1.9
Other	13.1
Clerical Positions	145.0
Medical Secretary/Transcriber	40.9
Insurance Clerk	18.4
Medical Records	13.8
Other Clerical	13.8
Cashier	8.4
Switchboard Operator	5.2
Receptionist	38.7
Other	5.8
Administrative Positions	26.7
Clinic Administrator	2.8
Assistant Administrator	1.9
Office Manager	4.4
Business Manager	2.8
Accountant	2.6
Bookkeeper	6.1
Purchaser	1.5
Personnel	1.2
Data Processor/Analyst	2.2
Other	1.1
Maintenance Positions	32.5
Housekeeping	13.7
Building Maintenance	13.8
Laundry and Related	4.3
Other	0.7
TOTAL STAFF	365.5

Summary

A survey of physicians' offices in Northwest Illinois by mailed questionnaire found the typical medical unit to have one physician, 3.4 examining room and 4,350 active patients. Most patient files are kept alphabetically by individual. Few units code diagnoses, use computers for billing or use the problem oriented medical record. Just over half of the offices with primary care can do X-rays while urinalysis is the test most often performed on the premises.

Physician offices employ about 1,500 full-time equivalent employees not counting doctors, or about 3.7 employees per doctor. RN's are the single largest occupation group, however, the number of clerical and administrative positions are greater than clinical employees. Increased training is indicated in Northwest Illinois for receptionists and medical secretaries. ◀

Viewbox

(Continued from page 360)

DIAGNOSIS: *Gout*—The hand is effected less frequently than the lower extremities. In fact hand without foot involvement is rare. The appearance suggests a tumor which has broken out into soft tissue, however there is a slight increase in density in the soft tissue mass which is the result of deposition of calcium in the urate crystals. The destructive change in the joints are produced in two ways. First, intra-articular urate crystals stimulate synovial proliferation into and onto articular cartilage, particularly at the periphery of the joint. The thin cartilage in this area is quickly destroyed with subsequent bone erosion.

Secondly, urate crystals are deposited as tophi in subchondral bone. They begin as oval lucencies with a slightly sclerotic border. As these tophi enlarge, they break through the bony cortex into the joint or adjacent to it. These expanded tophi are often surrounded by a feathery-like thin sclerotic rim and often contain calcifications. A C-shaped destruction is characteristic of gout. Since gout involves both sides of the joint, differentiation of such bony enlargement by a trophus from tumor is readily apparent. Tumors tend to be singular and affect only one side of the joint.

Doctor's News

SIXTH SYMPOSIUM ON NUTRITION AND FOOD TECHNOLOGY—ISMS, along with the Chicago Nutrition Association and the Chicago Section of the Institute of Food Technologists, is sponsoring a conference on the "Nutritional Impact of Food Regulations." The program will be held at the LaSalle Hotel in Chicago, April 21, 1976. The single day session will deal with the effect of governmental regulations on emerging research, food science and consumer trends. Noted speakers from the academic and private sectors will address the conference.

For further information contact: Larry Boress, at ISMS offices, 55 E. Monroe, Suite 3510, Chicago 60603. This program is accredited by the American Dietetic Association.

IDPH RELEASES GUIDELINES ON RAPE TREATMENT—Earlier this month the Illinois Department of Public Health released "Guidelines for the Treatment of Sexual Assault Victims" as mandated under the Rape Victims Emergency Treatment Act (P.A. 79-564). The act became effective Jan. 1 and requires hospitals to directly, or in conjunction with other area hospitals, provide emergency and counseling services to rape victims (UTD, 1-26-76). If the victim is unable to pay, the state will reimburse the hospital for the cost of the treatment. The guidelines set forth the appropriate medical examinations, laboratory tests, record keeping, police reporting and counseling procedures to be followed by hospitals. To be reimbursed by the Department of Public Health, the hospital's treatment plan must be approved by the department. Information may be obtained from IDPH, 535 W. Jefferson St., Springfield.

CONCERNED ABOUT WATER AND AIR POLLUTION? The Environmental Protection Agency of the State of Illinois will hold a series of public hearings on its Preliminary Water Pollution and Air Pollution Control Program Plans and Municipal Project-Priority List for state and federal water pollution grants for Fiscal Year 1977, (beginning July 1, 1976). The hearings will be held at the following locations:

Peoria: April 19, 1976, 9:30 a.m., Peoria Holiday Inn

Carbondale: April 20, 1976, 9:30 a.m., Ramada Inn

Springfield: April 21, 1976, 9:30 a.m., Dept. of Transportation Bldg.

Chicago: April 22, 1976, 9:30 a.m., O'Hare Inn

For further inquiries contact: Mike Miller, Air Pollution Control, or Abraham Loudermilk, Water Pollution Control, 2200 Churchill Road, Springfield 62706.

ISMS ANNOUNCES JOURNALISM AWARD WINNERS—*The Chicago Daily News; Paddock Circle Newspapers, Libertyville; WBBM-TV, Chicago; WMBD-TV, Peoria; WMRO radio, Aurora; and WMAQ/WNIS-FM, Chicago,* were winners in the 12th Annual ISMS Medical Journalism Awards competition which honors outstanding achievements in promoting a better public understanding of medicine and health in Illinois.

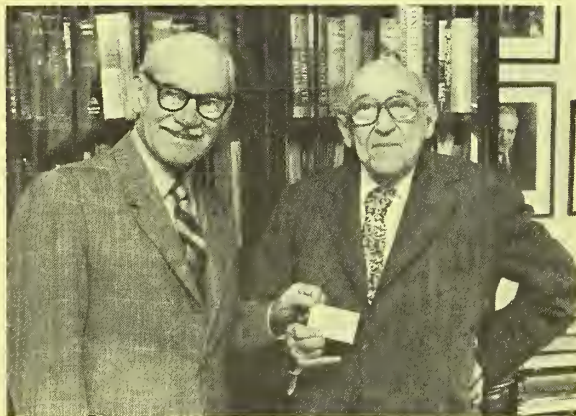
NEW MEDICAL SCHOOL APPROVED—The University of Health Sciences/The Chicago Medical School has received full approval of its program terminating in the M.D. degree for a period of two years since the completion of the survey visit by the Liaison Committee on Medical Education, representing both the Council on Medical Education of the AMA and the Association of American Medical Colleges.

ALCOHOLISM DEMONSTRATION PROGRAMS are being funded by the Illinois Department of Mental Health and Developmental Disabilities in each department region as a prelude to the development of a statewide system of community-based treatment centers where public inebriates will be taken instead of to jail. These pilot programs will be used to work out cooperative relationships with local law enforcement agencies, hospitals and other community groups concerned with alcoholism problems.

More information about local programs is available from regional alcoholism coordinators at the following locations: Region 1A (Rockford area): (815) 987-7000; Region 1B (Peoria area): (309) 691-2200; Region 2 (Chicago area): (312) 793-5517; Region 3A (Springfield area): (217) 786-6834; Region 3B (Champaign area) (217) 333-3270; Region 4 North (Edwardsville area): (618) 656-7448; Region 4 South (East St. Louis area): (618) 465-5593; Region 5 (Anna area): (618) 833-5161.

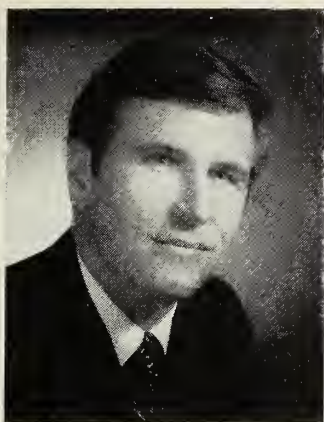
PHYSICIANS IN THE NEWS—Kenneth M. Rosen, M.D., Chicago was named to the Board of Governors of the American College of Cardiology. He is one of twenty-three Fellows serving as the new governors who will be responsible for the activities of the College within their respective regions.

William J. Grove, M.D., presently Executive Dean of the University of Illinois College of Medicine, has been appointed Vice Chancellor for Academic Affairs at University of Illinois at the Medical Center. **Jerome J. Hahn, M.D.**, has been appointed Interim Executive Dean of the College of Medicine.



The first membership card in the newly organized American Retired Physicians Association was presented to **Morris Fishbein, M.D.**, (right), whose name has long been synonymous with American medicine. The former editor of *JAMA*, Dr. Fishbein was among more than 1,000 physicians who joined the ARPA in the first 60 days after its organization. Presenting Dr. Fishbein with membership card number one is Ralph Creer, ARPA's executive director.

For further information contact: Ralph P. Creer, Executive Director, A.R.P.A., 400 N. Michigan Avenue, Chicago, Illinois 60611, 312-644-3092.



President's Page

A Year Later

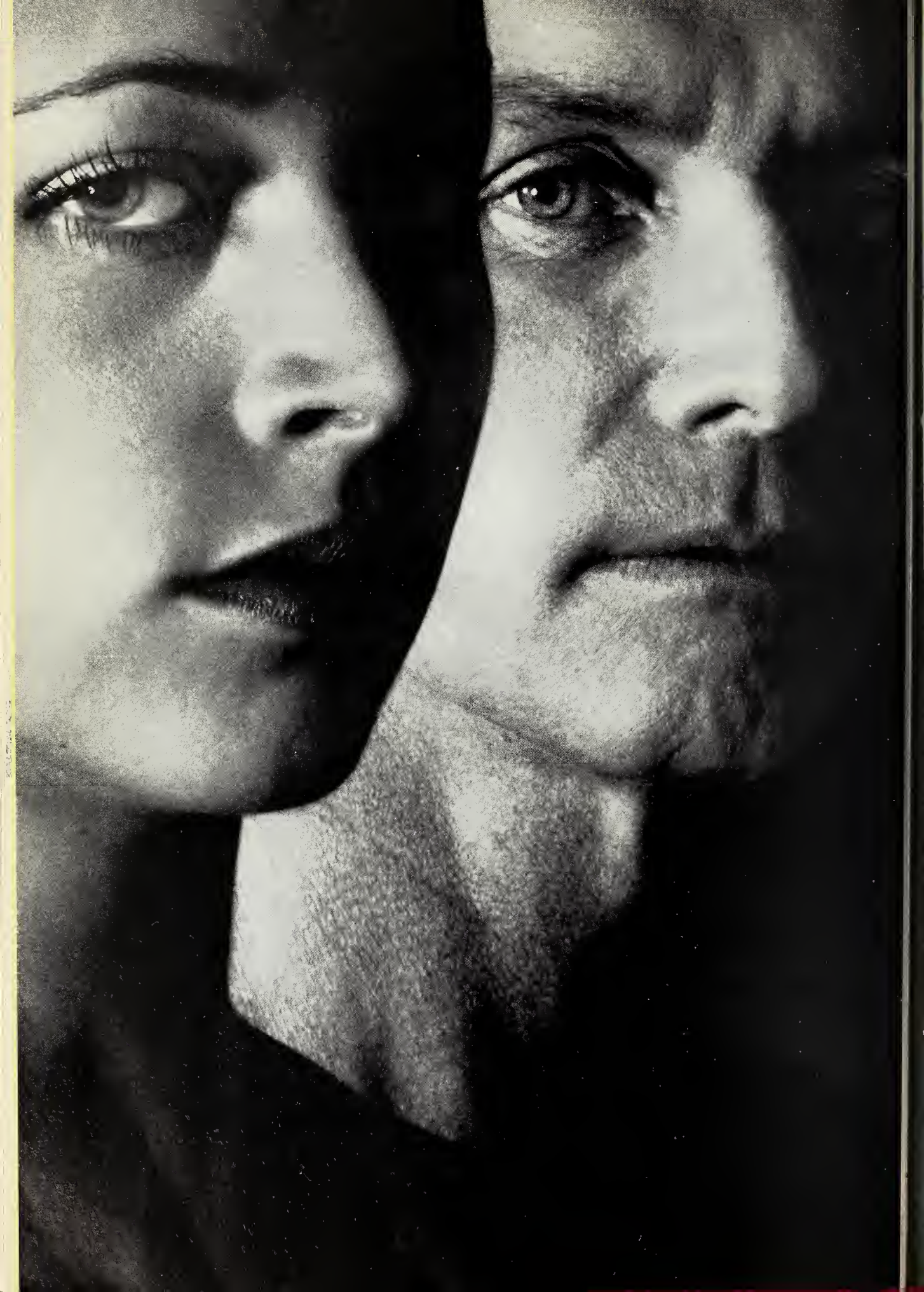
In my inaugural address, I committed myself to certain goals during my term as president. I pledged that I would endeavor to:

- *Involve more physicians in the activities of ISMS.* During the past year, ISMS took aggressive action to meet several major challenges confronting Illinois physicians. This activity prompted a dramatic rise in membership involvement which, hopefully, will continue in the years ahead. I believe that the membership is encouraged by the medical society's open and aggressive responses—through court action or constitutional challenge—and positive suggestions in areas of concern.
- *Insure that no faction assumes dictatorial control of any portion of this society.* The potential for development of this situation has markedly subsided due primarily to the increased strength of many county societies. Unprecedented activism at the local level is a tribute to county society leaders, staff, and most notably, the increased interest and concern of individual members.
- *Promote consideration of our experience and our knowledge as the criteria for decisions which affect the medical care of our patients.* I believe we have vigorously presented our beliefs and philosophy and used our experience in a professional manner to resolve many problems involving government and other agencies. It appears that we have “turned the corner” and now are committed to *act* rather than *react*. This commitment will enable us to determine the future of our profession. We must insure that it is nurtured and expanded upon.
- *Devote a major portion of my energies to presenting your views to the public in a proud and forthright manner.* I feel that efforts in this area have been extremely successful. This success can be directly attributed to the support of an untold number of people both outside and within the profession, including my seven clinic partners who unanimously backed by time-consuming commitment to ISMS.

It has been an honor to serve as your president. The accomplishments of the past year were built upon a foundation laid by my predecessors. Hopefully, my efforts have added to that foundation and will benefit my successors.

Jm Ingalls, M.D.

J. M. Ingalls, M.D.



Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

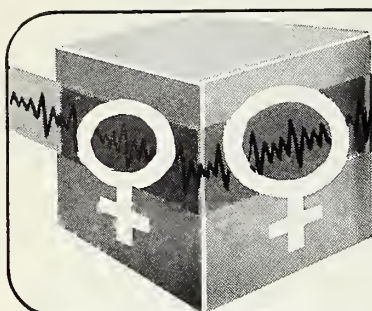
12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005



pulse... of the doctor's wife

MRS. HAROLD KEEGAN, Editor

Worry-In Sponsored by St. Clair County Medical Society Auxiliary

On February 3 the St. Clair County Medical Society Auxiliary and the Family Counseling Center of East St. Louis co-sponsored a "Worry In" for thirty-three women of the area who braved the snowy and icy weather of that day. Mrs. Edward Szewczyk, President of the Board and Past-President and present Community Health Chairman of the Auxiliary, and Mrs. Phil Auner, Secretary of the Board and an Auxiliary member, organized the Worry-In.



Group at Worry-In, including Mrs. Phil Auner and Mrs. Edward Szewczyk (standing); Mrs. Julian Buser (seated, middle), President, St. Clair County Auxiliary, and John Zirges, a research psychologist.

Several educators and psychologists spoke on a variety of topics, ranging from "Problems with Pre-School Children" to "How to Do for Others—Yet Be Me." The Worry-In provided a forum for women to come and worry about their problems. Aimed at mothers and full-time homemakers, the homebound women could meet, share their experiences and discuss their mutual interests and problems. Women doubt themselves, but at the Worry-In they can begin to see other women have the same problems. They can gain confidence in themselves.

After the speakers' presentations, the women met in small groups and were lead in a discussion of their problems, their hopes and their frustrations. Much enthusiasm was expressed for the Worry-In by those in attendance and future programs probably will be held.

The Auxilians baby-sat for two infants and eight preschoolers who accompanied their mothers. The Signal Hill Lutheran Church, where the program was held, had an excellent nursery. The Auxiliary also furnished refreshments for the group and gave a donation to help defray the cost of the speakers. Various of our pamphlets, such as "Poisoning", "Drug Problem", "Is He Sick", and "Baby-sitting", were made available for those interested. We felt this first venture was most successful.

Mrs. Julian W. Buser
President, St. Clair County Medical Society

Doctors' Day suggestion from Stephenson County Medical Auxiliary

Stephenson County Medical Auxiliary had traditionally given each doctor a carnation on Doctors Day. In 1974 we honored the doctors instead with a printed directory sheet of "Health Care and Social Services of Stephenson County." We

distributed 4,000 copies to agencies listed, school counselors, professional offices, churches, industry, law enforcement, etc.

The response was overwhelming! We had notes and calls from the county health nurse to the

personnel manager of our largest industry. It not only provided a tremendous service, but the "public relations" was fantastic. However, great as it was, we couldn't possibly print enough copies to make a dent in the total number which could be useful. Therefore, we presented the idea to our local telephone company (Northwestern Telephone Company) and asked if it might possibly consider publishing the page as a public service . . . with the Auxiliary updating the page each year as numbers change.

After two months the telephone company informed us that all obstacles had been cleared . . . and that the Northwestern Telephone Company would pay the cost of publishing the additional page in the 1975 directory with the understanding the Auxiliary would provide an up-to-date page to the publisher annually. The page lists the Auxiliary by-line . . . and we are very humbly grateful for this opportunity to publicly announce we care.

Mrs. John Clark, Chairman

Emergency and Health Care Workshop

An "Emergency and Health Care Workshop" was presented by Sangamon County Auxiliary. The project has also been submitted to the National Project Bank.

The goal of the workshop was to improve child care in the day care centers. Directors of day care centers were contacted and also the president of the Nursery School Association. Their needs were explored and how we could meet those needs. It was discovered the best time for the classes would be evenings. Therefore, the classes consisted of four 2-3 hour sessions spread over two weeks.

The major areas of concern were first aid, child abuse, infectious disease, child behavior and cardiopulmonary resuscitation. Physicians from the Medical Society volunteered to conduct the sessions. The Illinois Heart Association was in charge of the session on cardiopulmonary resuscitation and provided the mannequins for demonstrations. Time was allowed during each session for questions; however, a tactful moderator is needed to keep discussion from disgressing from the main subject.

Letters were sent to the schools giving information on the course and a registration slip was included. The State Department of Children and Family Services was very helpful. It approved the idea and expressed hope other auxiliaries would do the same. A letter was sent from the Department encouraging the day care schools to take advantage of the course.

A separate committee provided home-baked cookies and coffee during each session. The sessions were tape recorded and copies are available for auxiliaries interested in the project. Folders were prepared for each registrant which included the AMA first aid booklet, information on child

abuse and where to report suspected cases, information from the Public Health Department on infectious diseases, and information about the auxiliary. The project was covered by T.V., radio and the newspaper.

The image of the medical community was enhanced because they cared enough to donate their time to this cause. The cost of the project was \$150. Sixty centers were contacted: twenty centers responded with an average attendance of 45 people.

Mrs. Jessie Fulcher
Sangamon County Medical Society Auxiliary



Millie Vickery, President, ISMS Auxiliary, and Jane Swanson, Executive Secretary, prepare for the Annual Convention to be held April 25-28, 1976, at the Palmer House, Chicago.

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2,500	18,242.23	35,854.56	66,772.78	111,758.57	177,212.50	272,447.35
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Progress Through Action?

BY JESSIE BREINIG, CHARTER MEMBER, AAMA, ILLINOIS SOCIETY

It's flag-waving time for the United States as we celebrate her bicentennial year. Let's focus on Illinois where it also is flag waving time for a special occasion: the twentieth anniversary of the Illinois Society of the American Association of Medical Assistants (AAMA, Illinois Society).

It's time to tell a few things about ourselves to those who gave their approval and encouragement throughout those twenty years: the Illinois State Medical Society and the many County Medical Societies.

There had been a need for an exchange of ideas, continual learning and education, and a sharing of experiences for those employed as aids or medical assistants to the physicians and surgeons in offices and clinics. Kansas had started such a movement, and by 1956 a few other states had become organized. At the Leland Hotel in Springfield, Illinois, in May of 1956, Harold Swanberg, M.D. had been very instrumental and enthusiastic about organizing that first meeting for Illinois persons. Four Illinois county chapters' medical assistants and secretaries associations had registered at that meeting: Adams County (Quincey); Cook County (Chicago); Sangamon County (Springfield); and Tazwell County (Pekin).

The meeting (which was to become an annual educational and business meeting or convention, thereafter) had been organized and conducted under Roberts' Rules of Order, Revised, and declared to be non-profit. It was not nor was it to become a trade union or collective bargaining agency. It was to become a society that would offer educational opportunities for every member to improve her learning and skills as a medical assistant to physicians. The name "Illinois Medical Assistants Association" was adopted. Officers were elected, committees were formed, a constitution and by-laws were put into formative stages, and educational programs were outlined before that meeting adjourned.

The two big objectives were: 1) to get endorsement of the Illinois State Medical Society, and 2) to receive the charter from the State of Illinois. Within a short time both goals had been achieved. The Illinois Medical Assistants Association became a charter member of the American Association of Medical Assistants (AAMA) at the national organizational meeting held in Milwaukee,

Wisconsin, October, 1956. All of this happened twenty wonderful years ago.

What have we done?

A new name: "AAMA, Illinois Society," was approved a few years ago. We have been an active group and have progressed each year. The original ideas, hopes, plans and all other aspects of better medical assisting have developed through good leadership dedicated to the principles set forth, and by enthusiastic members willing to devote the time and energy necessary for self-improvement.

An annual educational and business meeting for membership is conducted each Spring, held in different cities throughout the State. A bi-annual meeting of the Council has met downstate every August, and in Chicago every January, to conduct the business and program management between convention dates.

The Illinois Society has grown from four county chapters in 1956 to thirty-two chapters in 1976. The original membership of a couple hundred has now reached over one thousand. Each chapter has local county medical advisors. The state society now has seven advisors: John L. Wright, M.D., *Chairman*, Bloomington; Carl E. Clark, M.D., *ISMS Liaison*, Sycamore; Allison L. Burdick, Sr., M.D., Chicago; Thomas R. Harwood, M.D., Chicago; Robert J. Kramer, M.D., Joliet; Leslie Schwartz, M.D., Chicago; and William T. Sheehy, M.D., Elgin.

Educational Opportunities

There have been annual symposia, seminars on effective speaking and listening skills, learning to learn, telephone techniques, workshop and roundtable discussions, leadership training programs, certification programs and courses to prepare for writing the AAMA Certification examination (to become a Certified Medical Assistant, clinical and/or administrative), outstanding lecturers on medicine, medical assisting, and other related topics. Insurance and medico-legal programs, visual and audio aids, and currently, government insurance workshops are to mention a small portion of educational stimuli.

The Illinois Society has worked with AAMA on health careers for many years. The Society has been successful in stimulating medical assisting training classes and courses to be added to college curricula throughout the state, in some instances staffed by our AAMA, Illinois Society members. Upon completion of the course, students may receive an Associate in Science degree.

Communications and inspirations: Originally "The IMAA Newsletter" kept all members informed of state activities and programs. Today, an "Executive Memo" goes from the desk of the president to every member each month, and a periodic bulletin: "The ILLINI CARDINAL" edited and staffed by members, is an informative means of presenting Society news and coming events to the membership.

AAMA, Illinois Society has had continual representation on the AAMA Board of Trustees since national charter days of 1956, and excellent attendance and representation at every national annual meeting.

In past years, the Illinois Society has been hostess state to the AAMA Convention twice. At the Palmer House in Chicago, from September 13-19, 1976, the Illinois Society will once again give her warm welcome to medical assistants from all over U.S.A.

When the 1976 AAMA, Illinois Society Twentieth Anniversary Educational Program and Convention convenes at the Forum 30 Hotel in Springfield on April 29, raising the gavel will be President Magda Brown. Aims, purposes, and professional dignity will be maintained; and those

wonderful Sangamon County Medical Assistants will provide good food, fun, laughter, and memories for the beginning of another twenty years.

Illinois physicians—YOU are most cordially invited to attend any of our business or educational programs, sit in at our House of Delegates, and enjoy the banquet and other functions of this occasion.

We are progress in action. We are stimulated with the desire and dedication, as medical assistants, to render ethical and efficient services to our employees and patients and to participate in all phases of the doctor-medical assisting teams of allied health careers.

Unfortunately, many of our Illinois counties are still without an AAMA chapter, and strongly need the aid and support of their local county medical society to advise and encourage these endeavors.

Through membership and active participation in the AAMA, Illinois Society, the medical assistant can become more knowledgeable about ways to better aid physicians and the profession, both in clinical and administrative capacities. We urge the doctors throughout our state to encourage their medical assistant (clinical or administrative) to join the AAMA, Illinois Society. For information about membership contact: Mrs. Jean Nelson, *First Vice-President*, 829 Carnaby Court, Schaumburg, 60172 or Mrs. Velma Hukill, *Second Vice President*, 115 North Fourth Street, Cuba, 61427. In twenty short years we have come so far—and with continuation of conscientious, dedicated medical assistants, we anticipate a future of progress in action.

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Spinal Cord Compression with Neurofibromatosis

BY RICHARD A. LEWIS, B.A. AND BHUPENDRA AGRAWAL, M.D./CHICAGO

Multiple neurofibromatosis, or Von Recklinghausen's disease was first popularized by Von Recklinghausen in 1882 although the disease had been described in 1849 by Robert Smith. The condition is characterized by innumerable neurofibromas of the skin varying in size and shape usually accompanied by pigmented spots called cafe-au-lait. The etiology is unknown but the condition may have a hereditary history appearing as a dominant characteristic. The incidence is one in every 2500-3300 births and involves both sexes equally. It is reported that paraplegia complicates only three of 223 ascertained cases of neurofibromatosis.¹ Thus, the occurrence of paraplegia with neurofibromatosis is rare.

This paper describes a case of neurofibromatosis with long standing secondary quadriplegia of four year's duration due to spinal cord compression. Surgical removal of the spinal cord tumor resulted in remarkable return of function in the lower extremity as well as marked decrease in spasticity.

Case Report

An unmarried, 33 years old black female was admitted with a history of neurofibromatosis since age 12. There was no familial history of this condition. She was admitted for rehabilitation for quadriplegia.

Five years prior to admission at age 28 she entered a local hospital complaining of pain and stiffness in her legs and difficulty in walking. Examination revealed numerous subcutaneous nodules throughout her body appearing to be neurofibromas and hypalgesia to pin prick in the thighs. The films of the lumbosacral area revealed scoliosis. Myelography displayed multiple intradural deficits at L₃, L₄ and C₇ but there was no evidence of block. A lumbar spinal tap revealed increased protein (61 mg.% protein; normal 15-45 mg.%) and cell count (89 cells; normal 0-5 cells). VDRL was negative. Treatment consisted of erythromycin for infection and

a muscle relaxant for low back pain.

Over the course of the next five years, the patient made no progress toward regaining ambulatory skills and was confined to a wheelchair. There was progressive deterioration as spasticity and pain in the lower extremities increased and extended to the upper limbs as well. She soon became bedridden. Rehabilitation training was requested for reducing this progressive spasticity.

Physical examination on admission revealed a quadriplegic secondary to multiple neurofibroma with severe muscle spasticity in the lower limbs and weakness of the upper extremities. Cafe-au-lait spots were seen with associated subcutaneous nodules on the abdomen, axillae, arms, and upper thighs. There was involvement of cranial nerves IX, X, and XII, and of the sympathetic trunk. Cerebellar ataxia was found as well as hypertrophy of the right side of the tongue. There was no nystagmus. The lower limbs were very spastic which was marked in the adductors, extensors of the knee and plantar flexors of the ankle.

Results of Investigations

The investigations showed extensive neurofibroma involvement. Chest X-ray showed widening of the upper mediastinum, multiple mass densities and extensive rib notching. There was degenerative lipping of the lower cervical vertebrae (C_{4,5}), widening of the intervertebral foramina (Fig. 1), scoliosis (Fig. 2), and posterior scalloping of the lumbar vertebral bodies. Soft tissue masses were seen in the low thoracic area. A barium enema (Fig. 3) showed a pelvic mass wrapped around the rectum narrowing the lumen and displacing the rectosigmoid anteriorly. Another abdominal mass caused elevation of the left kidney, as seen with IVP, although no intrarenal mass was seen. A myelogram (at L₂-L₃) showed a complete block at T₁ with an



RICHARD A. LEWIS, B.A., is a second year medical student at Northwestern University Medical School. He completed this study during a fellowship at the Rehabilitation Institute of Chicago.

BHUPENDRA K. AGRAWAL, M.D., is Attending Physician at the Rehabilitation Institute of Chicago and an Associate of Northwestern University. He is also a consultant at Northwestern Memorial Hospital.



Figure 1. Note the enlargement of the intervertebral foramina.

extradural lesion suspected. There was no evidence of widening of the subarachnoid space or cord widening.

Surgery Performed

The severe spasticity in the lower extremities interfered with the rehabilitation program. It was difficult to even separate her legs or position her for catheterization because of this spasticity. Thus an intrathecal block was suggested. A surgical procedure was also considered. In view of the fact that the myelogram showed obstruction at only one site and the fact that the paralysis was of long standing, the benefits to be gained as far as recovery were concerned seemed doubtful. Yet, after prolonged discussion, surgery was decided upon.

A complete laminectomy at C₃-T₁ was carried out. A large tumor was removed at the C_{4,5} level on the left and another large one at the C_{5,6} level on the right and various small tumors were removed bilaterally from the ventral and anterior aspects of the spinal cord. Then the spinal cord was thinned out from the chronic compression of the tumors. Postoperatively, the patient regained movements in both lower extremities. Although initially there was a decrease in strength of the upper extremity due to edema



Figure 2. Note the sclerosis of the lumbar vertebra.



Figure 3. Barium enema shows displacement of the colon.

secondary to operative trauma, this gradually improved. Since the operation, the patient has shown dramatic, steady improvement with decreased spasticity and increased voluntary movement in the lower extremities. She can now come to standing in the parallel bars and ambulatory exercises have been initiated.

Discussion

The pathology of neurofibromatosis is not clearly delineated. The neurofibromas are characterized by an irregular out growth of Schwann cells, associated with increase of reticulin and collagen and penetration by nerve fibers. The presence of melanin pigment on the overlying epidermis is a common feature of a neurofibroma. In contrast, solitary schwannomas are encapsulated, rich in reticulin, and have a more orderly structure. These neurofibromas and schwannomas can occur in all parts of the cranial-cerebral axis as well as the peripheral nerves.² The distinction between these two is not always clear cut since morphological features of both of these lesions frequently blend into each other. Malignancy is accompanied by sudden increase in size and shape of the tumors. Some patients have more than one malignant lesion.²

Diagnosis

The diagnosis of neurofibromatosis can be made clinically from the characteristic multiple tumors, cafe-au-lait spots, and family history. In addition, there may be endocrine changes, osseous, and central nervous system involvement. Evidence has been produced that approximately 80% of affected persons can be diagnosed solely on the basis of the number of cafe-au-lait spots present.¹

Paraplegia may result from vertebral angulation, subluxation, or dislocation or from intraspinal tumor such as neurofibroma, meningioma, or fibrofatty tissue. In some instances, a combination of mechanisms may contribute to the pathogenesis of paraplegia.³ In neurofibromatosis, the spinal cord involvement is due to direct extension of the nerve tumors and usually takes 20 to 25 years before the cord is actually involved.² Localization of the lesions producing compression of the spinal cord is accomplished by myelography. The case here illustrates that compression of the spinal cord does not necessarily occur at more than one site even though there may be radiologic evidence of widening of the intervertebral foramina suggestive of dumbbell tumors.

To date, there has been little success in the treatment of neurofibromatosis. Although irradiation has failed to control tumor growth in

this disease, surgical excision has been successfully applied to treat intracranial and intraspinal lesions.⁴ The surgical approach in the case illustrated consisted of laminectomy and removal of the tumors. It has been recommended by other authors that fusion should be done with laminectomy, especially in the presence of anterior bone destruction, since posterior laminectomy increases the instability of the spine and may lead to dislocation with spinal cord compression. Spine arthrodesis is recommended when laminectomy is carried out for tumor associated with vertebral destruction.³

This case shows that prognosis for recovery in long standing compression of the spinal cord from neurofibromatosis can be good. Although there is no evidence that following its division, regeneration of either the fetal or adult mammalian spinal cord ever occurs, a remarkable degree of recovery may follow the relief of compression by the removal of a tumor which has grossly distorted or flattened it.⁵ The younger the patient, the quicker and more complete will the recovery be.

The late results of operation have been studied to ascertain whether the recurrences or relapse of symptoms due to other causes has taken place after a period of years. In one study in which nine patients were followed, whose tumors were removed 20 or more years prior, none of the tumors recurred. It was recommended in this study that the area of dura to which the tumor is adherent should be excised along with it to reduce the likelihood of recurrence.⁵

Summary

A case of neurofibromatosis with spinal cord compression is presented. The pathology, diagnosis, clinical course, and prognosis are discussed. The case illustrated that prognosis can be good following surgery even in long standing compression of the spinal cord and that the recurrence of the tumor following surgery is very low. ◀

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Allergy—The Maturing Specialty

BY DONALD L. UNGER, M.D./CHICAGO

In the past, allergy has been termed the "bastard of medical education";¹ it has now reached a rather schizoid adolescence. The term "bastard" was apt because few allergic patients are hospitalized and medical schools intertwine with hospital. Outpatient clinics have partially solved this problem. Also, it has often been a pseudo-scientific specialty with inadequate data to substantiate its beliefs. Allergy is now schizoid, as it is dominated by a hierarchy preaching of an ever-expanding field, but practiced by physicians largely limiting themselves to such mundane conditions as hay fever and asthma. The mere fact that the rashes of measles and syphilis have an allergic basis does not suggest that these conditions should be treated by allergists. Swineford² has written, "Surely 3000 allergists are not supposed to add arthritis, SLE, hemolytic anemia, renal problems, malignancies, collagen and other so-called immunological diseases to the already intolerable load of 30 million victims of the ordinary allergic diseases."

Allergy meetings have been collisions between the immunologists and the clinicians. One national society had a parade of lectures on such erudite subjects as sheep red cell receptors and techniques of ragweed fractionation, while the other had seemingly endless panels on nasal polyps and urticaria. One group was too esoteric and the other too redundant, so neither was quite suitable for many practicing allergists.

The full-time professors sometimes had a condescending approach to subjects of general interest. One reported hundreds of asthmatics admitted annually to his hospital with rare deaths. While he gloried in the low mortality, he should have been appalled at doing a poor job of preventive medicine. Good allergy management (avoidance of allergens, proper use of antibiotics for infections, judicious use of steroids, etc.) makes hospitalization of asthmatics a rarity. Similarly, since steroid-dependent asthmatic children are unusual, the numerous articles on their care raise doubts that some institutions sincerely try to avoid using these drugs. Their claim of treating a different population is suspect when each child sent them is promptly placed on steroids.

Recent events suggest that allergy is leaving its adolescence and approaching maturity. Board certification is no longer subservient to pediatrics or internal medicine. The American Academy of Allergy now has as many as four simultaneous sessions so that the immunologists can thrill to the intricacies of complement while the clinicians are devastated by the genetics of asthma. Each group has learned from the other, and clinicians now accept that the future of allergy rests upon advances in immunology.

Thus, I continue to listen to and study highly theoretical material while practicing much as my father did 30 years ago. We are indeed on the threshold of far greater understanding of allergic diseases and their management, and yet the day to day care of my patients seems almost static. There is a talmudic statement that if you are planting a tree and someone says the messiah is coming, finish planting the tree before investigating. Similarly, until the breakthrough arrives, I will continue to separate my asthmatic patients from their cats and dogs, just as I have done in the past. ◀

References

1. Swineford, O., Jr.: "Allergy, the Bastard of Medical Education," *J. Med. Educ.* 39:946, 1964.
2. Swineford, O., Jr.: "Allergy vs. Clinical Immunology: a Critical Analysis," *Ann. of Allergy* 33:337, 1974.



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and

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Last year over 400 physicians and spouses did their fair share by travelling to Springfield to talk with their legislators about malpractice. The result was the passage of S.B. 1024, the law currently being appealed that limits malpractice liability to \$500,000. This year, the stakes are higher and our goals for the Conference are higher. A wide ranging new package of remedial legislation is under consideration and we need the help of all Illinois physicians and their spouses to pass it. Can you spare a day for your profession? Will you do your share by attending?

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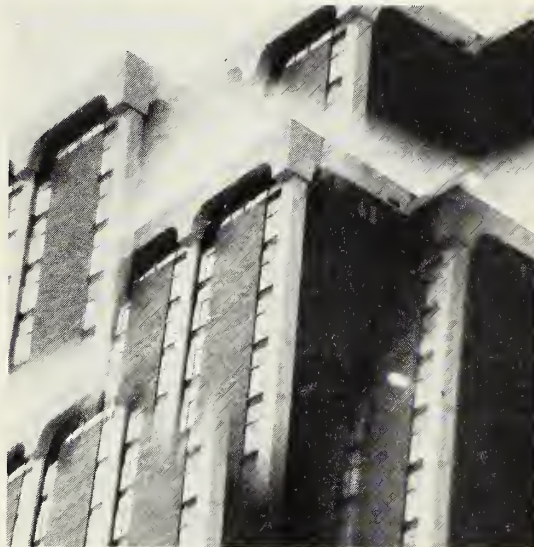
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Emergency medical care is a standard benefit in all basic Blue Shield certificates. This provides payment for emergency medical service furnished a patient, regardless of where it is given: out-patient department of a hospital, clinic, physician's office or wherever required.

Payment to the physician is the amount payable under the same Blue Shield certificate for emergency accident care. Benefits are provided for the initial visit only.

Care of a medical emergency means the initial treatment of the sudden and unexpected onset of a medical condition manifesting itself by symptoms severe enough that the absence of immediate medical attention could reasonably result in death, serious and permanent dysfunction of any bodily organ or part, or other serious and permanent medical consequences.

The following diagnoses are some examples of conditions normally considered sudden and serious:

- Chest pain, acute
- Asthmatic attack
- Epistaxis, uncontrolled
- Food poisoning
- Convulsions
- Hysterical reaction
- Insulin reaction
- Acute abdominal pain
- Foreign body in eye, ear, nose or throat
- Acute psychotic episode

The date of onset of the medical condition must be shown on the Physician's Service Report form to avoid delay in processing.

Payment for Surgical Assistance and Consultations

Some Blue Shield certificates provide benefits for the services of surgical assistants. A number of major accounts including the Steel and Motor groups, Federal Employees Program, Bell Systems and Jewel Companies have included this benefit in their contracts and will pay for the services of a surgical assistant, provided:

(1) The hospital does not employ surgical interns, residents or house staff who are utilized for such assistance, and

(2) The operation is major enough to require an assistant surgeon.

In each case the assistant surgeon should submit his own Physician's Service Report form and describe fully the assistance he gave the operating surgeon. His report should include the operative procedure performed and the name of the operating surgeon. Benefits are determined by the type of contract held by the member.

Consultations

Some Blue Shield contracts provide benefits for the services of a consultant when requested by the attending physician. The amount of payment is based on the Blue Shield certificate in force.

Allowances are provided for one consultation per admission is a hospital or extended care facility. Consultations are not in benefit for radiology or pathology or when payment has been made to the same physician for surgical service or obstetrical care.

The consulting physician must submit his own Service Report and include the name of the attending physician who requested the consultation.

Change in Member Identification Effective on Two National Accounts

Effective April 1, 1976 two national accounts served by Blue Shield—Sun Oil Company (Group #42529) and Carpenter Technology Corporation (Group #43583)—require that members use their Social Security Number for the member identification number when claims are filed. On the claim form, member's Social Security number follows the appropriate Group Number for complete identification. Physician's Service Report forms should be sent to Illinois Blue Shield for processing when services are furnished to members of these groups.

ASK BLUE SHIELD

. . . ABOUT MEDICARE

Billing for Chemotherapy Treatments

In billing for the administration of chemotherapy drugs, please itemize the charge for the drug(s) *separately* from the office visit and charge for the treatment. The carrier must have this information as part of the charges *for all services* furnished to make proper payment.

Because a significant number of such claims are being received without the charge for the drug included, our claims department requests your co-operation in completing the item to help us reduce payment delays.

In filing the claim, the charges for *each service should be itemized as follows*:

- (1) Office Visit and Examination \$00.00
- (2) IV Administration and Equipment . . . \$ 0.00
- (3) Cost of the Chemotherapy Drug(s) . . . \$ 0.00

The date of visit should also be included on the statement or 1490 form.

Photochemotherapy for Psoriasis

Photochemotherapy, which employs the drug methoxsalen and a high intensity ultraviolet light of narrow band wave-length, is not reimbursable by Medicare for the treatment of psoriasis. While methoxsalen has recognized medical uses, coverage guidelines state there is no substantial scientific evidence of its safety and efficacy when used in combination with ultra-violet light for treating psoriasis.

Doctor Who Furnished Service Must Be Identified on Billing Form

Medicare regulations require that in submitting a claim to the Part B Medicare carrier, *the name of the physician who furnished the service must be identified on the statement or uniform billing form*.

This information is essential for the carrier, since the physician's IRS number is needed for tax computation purposes, and his identity is necessary for maintaining his fee profile of charges to his Medicare patients.

Without the name of the physician the carrier cannot process the claim. A physician's imprinted label affixed to the claim would provide the carrier with fast and accurate identification of the provider who furnished the service.

Changes in Laboratory Certifications

Notice was received by the Bureau of Health Insurance office, Social Security Administration, that the three laboratories below had either closed or were no longer participating in the Medicare program. No Medicare payments would be made for laboratory services furnished on or after the effective closing or withdrawal dates:

Announced closings:

D. J. Medical Laboratory
1708 West Chicago Avenue
Chicago, Illinois 60622
Provider Number: 14-8250
Effective Date: January 15, 1976

Fomaro Clinical Laboratory
1429 West Irving Park Road
Chicago, Illinois 60613
Provider Number: 14-8276
Effective Date: February 11, 1976

Withdrawn from Medicare Program:

Alan P. Mintz, M.D., Portable X-Ray Service
586A Roger Williams Drive
Highland Park, Illinois 60635
Provider Number: 14-9811
Effective Date: April 1, 1976

The following laboratories have been certified for participation:

Medi-Comp Laboratory of South Cook County
1010 Dixie Highway, Suite 103
Chicago Heights, Illinois 60411
Provider Number: 14-8306
Effective Date: November 19, 1975

LaSalle Scientific Medical Laboratory
737 North LaSalle Street
Chicago, Illinois 60610
Provider Number: 14-8307
Effective Date: December 3, 1975

Mason-Barron Laboratory
4333 Main Street
Downers Grove, Illinois 60515
Provider Number: 14-8308
Effective Date: January 8, 1976



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and edema in acute inflammatory conditions and by reducing soft-tissue swelling and bone damage associated with chronic inflammation. It exhibits analgesic activity in rodents by inhibiting the writhing response in mice caused by the introduction of an irritant into the peritoneal cavity and by elevating pain thresholds to pressure in edematous hindpaws of rats. In rats made febrile by the subcutaneous administration of brewer's yeast, fenoprofen produces antipyretic action. These effects are characteristic of nonsteroidal, anti-inflammatory, antipyretic, analgesic drugs.

Indications and Usage: Nalfon® (fenoprofen calcium, Dista) is indicated for relief of the signs and symptoms of rheumatoid arthritis. It is indicated in the treatment of acute flares and in the long-term management of the disease. The safety and effectiveness of Nalfon have not been established in those rheumatoid arthritis patients who are designated by the American Rheumatism Association as Functional Class IV. (Incapacitated, largely or wholly bedridden, or confined to wheelchair; little or no self-care.) Improvement in patients treated with Nalfon for rheumatoid arthritis has been demonstrated by a reduction in joint swelling, a reduction in pain, a reduction in the duration of morning stiffness, a reduction in disease activity as assessed by both the investigator and the patient, and by increased mobility as demonstrated by a reduction in the number of joints with limited motion.

In clinical studies in patients with rheumatoid arthritis, Nalfon has been shown to be comparable to aspirin in controlling the aforementioned measures of disease activity but the frequency of the milder gastrointestinal adverse effects (nausea, dyspepsia) and tinnitus was less than in aspirin-treated patients. It is not known whether Nalfon causes less peptic ulceration than aspirin.

In some patients Nalfon has been used in combination with gold salts or corticosteroids. Studies have been inadequate to demonstrate whether Nalfon adds any improvement in patients maintained on gold salts or corticosteroids. Whether Nalfon could be used in conjunction with partially effective doses of corticosteroid for a "steroid-sparing" effect has not been adequately studied. The use of Nalfon in combination with salicylates is not recommended because there is no evidence to demonstrate that Nalfon would produce any additional effect beyond that produced by aspirin alone. Further, there is evidence that aspirin increases the rate of excretion of Nalfon.

There have been no studies in children; therefore the safety and effectiveness of Nalfon in children are unknown.

Contraindications: Nalfon is contraindicated in patients who have shown hypersensitivity to it.

Because the potential exists for cross sensitivity to aspirin and other nonsteroidal, anti-inflammatory drugs, Nalfon should not be given to patients in whom aspirin and other nonsteroidal, anti-inflammatory drugs induce the symptoms of asthma, rhinitis, or urticaria.

Warnings: Nalfon should be given under close supervision to patients with a history of upper gastro-intestinal tract disease and only after consulting the "ADVERSE REACTIONS" section. Gastro-intestinal bleeding, sometimes severe, has been reported in patients receiving Nalfon.

In patients with active peptic ulcer and active rheumatoid arthritis, attempts should be made to treat the arthritis with nonulcerogenic drugs, such as gold. If Nalfon must be given, the patient should be under close supervision for signs of ulcer perforation or severe gastrointestinal bleeding.

In subacute and chronic studies in rats, Nalfon caused interstitial nephritis, glomerulonephritis and renal papillary necrosis. These abnormalities were dose-related and began to appear at doses approximating the human dose. In chronic studies in monkeys interstitial nephritis also occurred following Nalfon administration. Although this was seen at doses considerably above the human dose, lower doses were not studied in this species. During the course of the clinical trials one patient developed renal failure and died with a diagnosis of septicemia, bilateral suppurative pyelonephritis

and renal papillary necrosis. It is not known whether these events were drug-related. A few patients developed mild elevations of the BUN during Nalfon® (fenoprofen calcium, Dista) therapy. Since Nalfon is eliminated primarily by the kidney, the drug should not be administered to patients with significantly impaired renal function. It is desirable to perform periodic renal function tests in all patients receiving Nalfon.

Precautions: In chronic studies in rats, high doses of Nalfon caused elevation of serum transaminase and hepatocellular hypertrophy. In clinical trials, some patients developed elevation of serum transaminase, LDH, and alkaline phosphatase which persisted for some months, and usually, but not always, declined despite continuation of the drug. The significance of this is unknown. It is recommended that periodic liver function tests be performed in patients receiving Nalfon and that the drug be discontinued if abnormalities occur.

The safety of this drug in pregnancy and lactation has not been established and its use during these events is, therefore, not recommended. Reproduction studies have been performed in rats and rabbits. When fenoprofen was given to rats during pregnancy and continued to the time of labor, parturition was prolonged. Similar results have been found with other nonsteroidal, anti-inflammatory drugs which inhibit prostaglandin synthetase.

In-vitro studies have shown that fenoprofen, because of its affinity for albumin, may displace from their binding sites other drugs which are also albumin bound and may lead to drug interaction. Theoretically, fenoprofen, as well as other nonsteroidal, anti-inflammatory agents, could likewise be displaced. Patients receiving hydantoin, sulfonamides, or sulfonyleureas should be observed for signs of toxicity to these drugs. In patients receiving coumarin-type anticoagulants, the addition of Nalfon to therapy could prolong the prothrombin time. Patients receiving both drugs should be under careful observation.

In patients receiving concomitant Nalfon-steroid therapy, any reduction of steroid dose should be gradual to avoid the possible complications of sudden steroid withdrawal.

Patients with initial low hemoglobin values who are receiving long term Nalfon therapy should have a hemoglobin determination at reasonable intervals.

Peripheral edema has been observed in some patients taking Nalfon; therefore, Nalfon should be used with caution in patients with compromised cardiac function.

Studies to date have not shown changes in the eye attributed to Nalfon administration. However, because of adverse eye findings in animal studies with some other nonsteroidal anti-inflammatory drugs, it is recommended that ophthalmologic studies be carried out within a reasonable period of time after starting chronic Nalfon therapy and at periodic intervals thereafter.

Since food decreases Nalfon blood levels, the drug should be given 30 minutes before or two hours after meals during the daytime.

When phenobarbital, which may enhance the metabolism of Nalfon, is added or withdrawn, Nalfon dosage adjustment may be required.

Caution should be exercised by patients whose activities require alertness if they experience central nervous system side effects from Nalfon.

Since the safety of Nalfon in patients with impaired hearing loss has not been established, these patients should have periodic tests of auditory function when chronic Nalfon therapy is given.

Nalfon decreases platelet aggregation and prolongs bleeding time. Patients who may be adversely affected by prolongation of the bleeding time should be carefully observed when Nalfon is administered.

Adverse Reactions: Digestive System

The most common type of adverse reaction concerned the gastro-intestinal system. Dyspepsia occurred most frequently, being observed in about one out of seven patients. Other adverse reactions in descending order of frequency were: constipation, nausea, vomiting, abdominal pain, anorexia, occult blood in the stool, diarrhea, flatulence, and dry mouth.

Three instances of peptic ulceration and/or gastro-intestinal hemorrhage that may have been due to the drug and four instances in which drug relationship was questionable were observed in 3,391 individuals to whom the drug was administered for periods of time ranging up to 165 weeks.

In less than 2% of patients the drug was discontinued because of adverse gastro-intestinal reactions.

Skin and Appendages

The most common adverse effect was pruritus which was seen in about one out of ten patients. Other adverse reactions were: rash, increased sweating, and urticaria.

In about 1% of patients Nalfon® (fenoprofen calcium, Dista) was discontinued due to an adverse effect related to the skin.

Nervous System

The most frequent adverse reaction observed was somnolence which occurred in about one out of seven patients. Other adverse effects which occurred less frequently were: dizziness, tremor, confusion, and insomnia.

Nalfon was discontinued in less than 0.2% of patients because of these side effects.

Special Senses

The most common adverse reaction was tinnitus which was seen in about one out of ten patients. Other reactions observed in descending order of frequency were: blurred vision and decreased hearing.

In about 0.2% of patients Nalfon was discontinued due to adverse effects related to the special senses.

Cardiovascular

The most frequent adverse event observed was palpitations. This was noted in about one out of 25 patients. Tachycardia was observed less frequently.

In less than 0.5% of patients Nalfon was discontinued due to cardiovascular adverse reactions.

Laboratory

Anemia was noted in about one out of 500 patients. One patient required discontinuation of Nalfon therapy due to anemia. Increase in alkaline phosphatase, LDH, and SGOT were observed. ("See Precautions.")

Miscellaneous

Headache was seen in about one out of seven patients. Less frequently observed in descending order of frequency were: nervousness, asthenia, dyspnea, peripheral edema, fatigue, malaise, dysuria.

Overdosage: No specific information is available on the treatment of overdosage with Nalfon. If it should occur, standard procedures to evacuate gastric contents and to support vital functions should be employed. Since Nalfon is acidic and is excreted in the urine, it may be beneficial to administer alkali and induce diuresis. Furosemide (Lasix®) did not lower blood levels.

Dosage and Administration: For the initial treatment of rheumatoid arthritis, the recommended oral dose is 600 mg. four times a day. Although improvement may be seen in a few days in many patients, an additional two to three weeks may be required to gauge the full benefits of therapy. The dosage should be adjusted in accordance with the patient's condition and changes in disease activity. Daily dosage larger than 3200 mg. is not recommended. Nalfon should be administered 30 minutes before or at least two hours after meals. If gastro-intestinal complaints occur, administer Nalfon with meals or milk.

There have been no studies in children; therefore, the safety and effectiveness of Nalfon in children are unknown.

How Supplied: Pulvules Nalfon, 300 mg. (equivalent to fenoprofen), are supplied in bottles of 60 and 500 (No. 416). They are yellow and ochre in color. The Identicode® (formula identification code, Dista) symbol is H77.



600472

Additional information available to the profession on request.

DISTA PRODUCTS COMPANY
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

Editorials



The Placebo Effect

According to Stedman's MEDICAL DICTIONARY (22nd Edition) a placebo is "an indifferent (or inert) substance, in the form of a medicine, given for the suggestive effect." The clinical researcher regards the placebo effect as an important factor in evaluating the effectiveness of a new drug or procedure.

As a rule the placebo is identical in appearance with the material being tested. The patient, as well as the physician conducting the study, may not know which is which. If there is a high percentage of improvement among those taking the placebo compared to those taking the real McCoy, it is concluded that the drug under investigation is not much better than the placebo. Various mathematical formulas are used for this purpose.

Some of our most widely used drugs, surgical procedures, diets and other devices have never undergone this type of testing. It is said time seems to have proven their worth. However, once in a while an enterprising young researcher will take on one of these old timers and come up with surprising results.

For many decades the manufacturers of patent medicines have been getting by with murder using testimonials as proof that their product works. All too often the testimonials were written by the manufacturer or by customers who would have improved even if they had received a placebo.

A few years ago a radio announcer came to me for advice on how he could sell a medical prod-

uct for the relief of dysmenorrhea and other menstrual disorders. Let us call the product "Comfort". The announcer informed me that a controlled study which had been done showed 60% of those using "Comfort" as opposed to 50% of those using a placebo obtained relief. I told him that the results were not convincing, but he replied, "60% improved and that's good enough for me. I don't care how they obtained relief even if it was suggestion."

Another hustler found that more people obtained relief with a placebo than did with his own brain child. So he switched and decided to promote the placebo.

Why do so many of those taking a placebo improve? In the vernacular of the clinician we might say "it was all in their head". This is not far from the truth because in suggestion an idea is implanted in the patients' mind which more or less influences his conduct or physical condition. Suggestion plays a role in many facets of our life, but in modern medicine it is not accepted as a bonafide therapeutic modality. This is a complete switch from medical attitudes prior to WW I. Since the placebo effect helps many people we should recognize it as such and put a little more of it into our therapy when appropriate. One thing for sure—there are no unpleasant side reactions and the "sugar pill" does interact with other drugs when taken together.

T. R. Van Dellen, M.D.
Editor

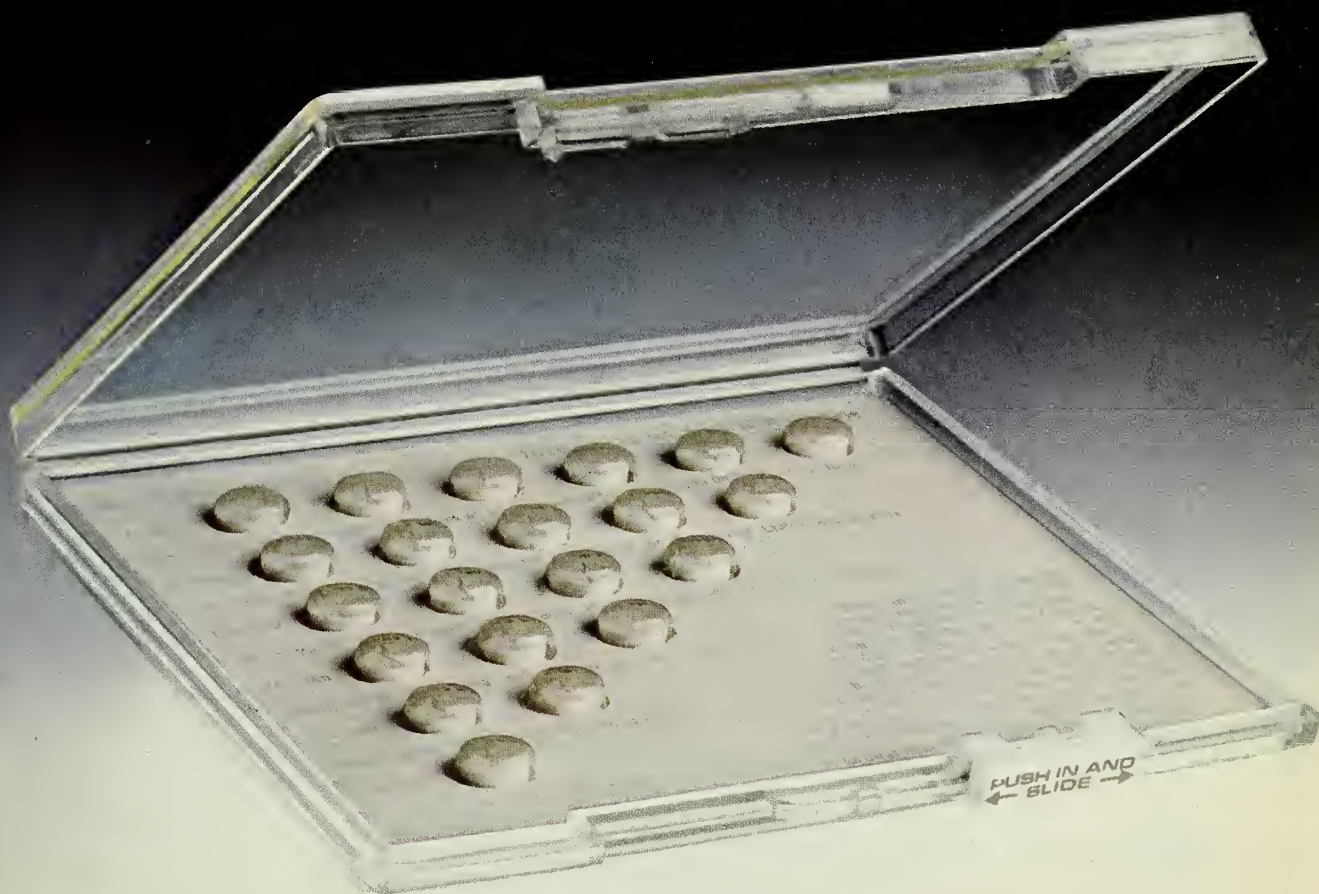
Upjohn

The Upjohn Company, Kalamazoo, Michigan 49001

Medrol[®] 4 mg Dosepak^{*}

methylprednisolone, Upjohn

The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.



Are Lawyers Taking Over U.S.?

In the March, 1976, "Medical Laboratory Observer," Dr. S. Raymond Gambino, M.D., professor of pathology and director of clinical chemistry laboratories at Columbia-Presbyterian Medical Center, New York, comments on the current scene.

"One hundred and forty years ago a Frenchman predicted that lawyers would someday take over American society for their own benefit. The current take over of medicine by law seems a partial fulfillment of that prediction."

"At the behest of the French Government, in 1831, 26-year-old Alexis de Tocqueville came to America to study our penal system. Following that brief visit, de Tocqueville wrote his perceptive and prescient book, *DEMOCRACY IN AMERICA*.¹"

"His prediction that lawyers would someday dominate American society might sound far-fetched when considered apart from the rest of the book; but de Tocqueville's predictions were not the result of wild guessing or luck. In fact, from the very first, his book was recognized as outstanding. It was widely read and widely reviewed."

"The lawyers of the United States form a party which is but little feared and scarcely perceived, which has no badge peculiar to itself, which adapts itself with great flexibility to the exigencies of the time and accommodates itself without resistance to all the movements of the social body. But this party extends over the whole community and penetrates into all the classes which compose it; it acts upon the country imperceptibly, but finally fashions it to suit its own purposes."

"Some think the enemy that will destroy America is communism, some our crass materialism, some demon rum, and some the second law of thermodynamics—but all along the secret enemy within has been the legal profession. That is what de Tocqueville predicted, and that is what is happening under our very noses; and all the while it is being done in the name of the greater good of mankind."

"You may have thought that the 20th-century physician took over the role of the priest, that hospitals are our temples, and that scientific medicine is the new religion. I know I thought that once; but I was wrong—dead wrong. The truth is that lawyers are our priests, legislative councils our cathedrals, and legal codes our religion."

"While we have been taking care of patients, studying disease, writing papers, and performing autopsies—in order to improve medical care—lawyers have embarked on a program of legalizing medicine. We are told time and again how much good will come from the ever-widening legalization of our society."

"We are in serious trouble. As one observer of the malpractice scene remarked, 'Lawyers, who make the rules, seem to hold most of the aces in the malpractice game.'² So what can we do? I am not certain, but the first step at least is to recognize how serious our problem is, and try to understand better what lawyers are doing. We must also counterattack."

1. de Tocqueville, Alexis. "Democracy in America," Volumes I and II. The Henry Reeve text as revised by Francis Bowen. Republished by Alfred A. Knopf, New York, 1966.

2. News item in *Hospital Practice*, May, 1975, page 149.

The School of Health Sciences of

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presents

A Course in Microsurgical Techniques

This course is offered to the Surgeon in practice who will participate in an intensive seven day program covering Basic Techniques in Microsurgery. Two applicants will be accepted in each program, effective April 1, 1976.

For further information and registration write to:

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Tuition: \$700

To help your patients understand what you already know!

You know that aspirin is a standard for analgesic effectiveness. You know how efficient it is as an antipyretic. And you know that it is basic starting therapy in inflammatory conditions such as rheumatoid arthritis.

But unfortunately, many of your patients don't.

And some may not be happy until they walk out of your office with a prescription for a more exotic, more expensive...and, sometimes, less effective drug.

That's why a new booklet has been prepared for your patients entitled, "What your doctor wants you to know about aspirin." Its basic purpose is to help skeptical patients understand that aspirin is a real drug with many proven therapeutic applications...and that you are recommending aspirin for them not because you're taking their problem lightly, but because aspirin is the best drug for their condition. The booklet also emphasizes that even though aspirin is sold without a prescription, like all medications it is to be used with care. Suggestions for optimal administration are offered—to help increase efficacy and minimize adverse effect.

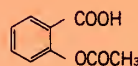
Moertel and his associates* have suggested that "...if aspirin is recommended with the strong endorsement of the physician, it is acceptable to even the most sophisticated patient."

We hope this booklet will help you offer such an endorsement to your patients and supplement your specific instructions when aspirin therapy is indicated.

To order a supply, just fill in and mail us the coupon.

*Moertel, C.G., et al: N. Engl. J. Med. 286:813 (Apr. 13) 1972.

What your doctor
wants you
to know about
aspirin



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Clinics for Crippled Children Listed for June

Thirty clinics for Illinois' physically handicapped children have been scheduled for June by the University of Illinois, Division of Services for Crippled Children. The Division will count twenty-two general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical, social and nursing services. There will be seven special clinics for children with cardiac conditions, and one for children with cerebral palsy. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- June 2 Hinsdale, Hinsdale Sanitarium
- June 3 Sterling, Community General Hospital
- June 3 Flora, Clay County Hospital
- June 3 West Frankfort, Union Hospital
- June 3 Lake County Cardiac, Victory Memorial Hospital
- June 8 Peoria, St. Francis Children's Hospital
- June 8 Carmi, Carmi Township Hospital
- June 8 East St. Louis, Christian Welfare Hospital
- June 9 Champaign-Urbana, McKinley Hospital
- June 10 Springfield, St. John's Hospital
- June 10 Kankakee, St. Mary's Hospital
- June 11 Chicago Heights Cardiac, St. James Hospital
- June 11 Division Cardiac, U. of I. Hospital Center for Handicapped Children
- June 14 Peoria Cardiac, St. Francis Children's Hospital
- June 15 Rock Island, Moline Public Hospital
- June 15 Belleville, St. Elizabeth's Hospital
- June 16 Springfield Pediatric-Neurology, Diocesan Center
- June 16 Chicago Heights, St. James Hospital
- June 17 Rockford, St. Anthony's Hospital
- June 17 Elmhurst Cardiac, Memorial Hospital of DuPage County
- June 17 Bloomington, Mennonite Hospital
- June 22 Peoria, St. Francis Children's Hospital
- June 22 Alton, Alton Memorial Hospital
- June 22 Danville, Lake View Hospital
- June 23 Jacksonville, Norris Hospital
- June 23 Aurora, St. Joseph Mercy Hospital
- June 25 Chicago Heights Cardiac, St. James Hospital
- June 25 Evanston, St. Francis Hospital
- June 28 Peoria Cardiac, St. Francis Children's Hospital
- June 30 Elgin, Sherman Hospital

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization and after-care for children with crippling conditions or who are suffering from conditions that may lead to crippling. In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse association, local social and welfare agencies, local chapters of the National Foundation and other interested groups. In all cases the work of the Division is intended to extend and supplement, not supplant activities of other agencies, either public or private, state or local, carried on behalf of crippled children. ◀

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Before prescribing, please consult complete product information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
 "Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
 Final classification of the less-than-effective indications requires further investigation.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium® (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacologic effects of agents, particularly potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are avoidable in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



ROCHE

Because irritable bowel syndrome*
is a psychovisceral problem

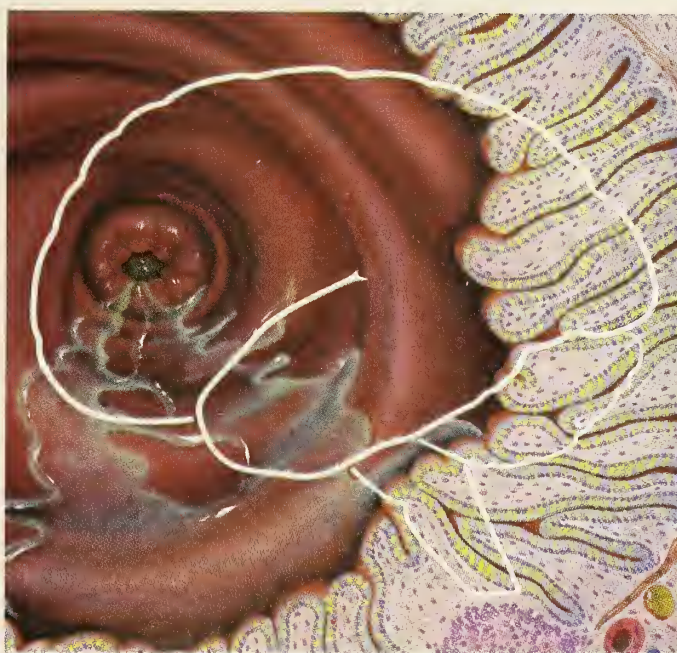
Dual-action

Librax[®]

Each capsule contains 5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br.

1 or 2 capsules t.i.d. or q.i.d.

A distinctive
antianxiety-anticholinergic
agent



Only adjunctive Librax provides the antianxiety action of
Librium[®] (chlordiazepoxide HCl) plus the antispasmodic-
antisecretory action of Quarzan[®] (clidinium Br)...
with the economy and convenience of a single medication.

*This drug has been evaluated as possibly effective for this indication. Please see
preceding page for brief summary of product information.

Education—Key Word for Illinois Society, AAMA

A letter from the Immediate Past President

Dear Doctors,

Since the Illinois Society, American Association of Medical Assistants was formed twenty years ago, the practice of medicine has changed immensely and so have the duties of the medical assistant. The increasing complexities of today's medical practice demand that the medical assistant be aware of changes in health care regulations, medical ethics and all aspects of patient care.

With your cooperation, the Illinois Society has conducted a wide range of educational programs during the past year which dealt with each of these areas.

In co-sponsoring with ISMS and several government agencies, we conducted 11 workshops focusing on Medicare, Medicaid, Medichex and Champus regulations. These workshops gave Medical Assistants across the state an opportunity to learn of the latest developments in government regulations. The programs were well received and favorable comments indicate continuation in the future. In addition, many medical assistants were introduced to our Society, which aided our recruitment efforts.

Another successful educational program was our Travel Course Seminars in Belleville, LaSalle and Effingham. These seminars concentrated on emergency medicine. During the Chicago Medical Society's Annual Midwest Clinical Conference, an all-day seminar on cleft lip and palate and juvenile arthritis was presented. Also, CMS proved an exhibit area for the duration of the Conference to further introduce AAMA. Seminars on office management; malpractice legislation-insurance; telephone techniques; communication; and leadership training further added to our knowledge.

Through the pages of the Illinois Medical Journal, paramedical personnel were able to become acquainted with AAMA.

We expect our membership to reach 1,000 by April 30th. There are 32 county chapters, with new chapters recently organized in Skokie (Cook county) and Carthage (Hancock county). Students have been encouraged to join us through invitations to medical assistants programs at Harper, Triton, R. Morris, Belleville, and Kankakee Community Colleges.

AAMA, Illinois Society held its annual meeting April 29 through May 2, 1976 at the Forum "30" Hotel in Springfield. During the 1975 meeting of the AAMA, in Louisville, Ky., Dr. John L. Wright, chairman of the Illinois Society's advisors, was elected to the American Association's Board of Advisors. Mrs. Luella Mitchell was elected to the AAMA's Board of Trustees.

Special thanks are extended to our physician advisors who attended all Council, Executive and Annual meetings and who participated in various chapter and state meetings. They are: Drs. Wright; Carl Clark; Leslie Schwartz; Allison Burdick, Sr.; Robert J. Kramer; Thomas Harwood and William Sheehy. Their valuable assistance contributed to the success of many events.

We are especially grateful to the Illinois State Medical Society for your continuing support and financial assistance.

Also, sincere appreciation is directed toward ISMS officials and staff, including: Dr. J. M. Ingalls, president; Dr. Joseph L. Bordenave, chairman; Roger White, executive director; Ned Stuppy, public relations director; Richard Ott, IMJ editor; Al Lerner, director of the Division of Field Services and Health Care Delivery; and Alan Ford, print shop; and all branch and county medical society executive directors.

Our organization has devoted 20 years to serving the physicians of Illinois. I am sure that the AAMA's 20th National Convention which we will host in September will mark the beginning of many more years of growth and service for the Illinois Society. We are confident that your continued support will benefit our new officers under the leadership of Mrs. Ruby Jackson for another educational year.

Magda Brown
Immediate Past President

How to Start a CME Program

"Find six interested colleagues, and arrange a meeting schedule. Begin with open-ended discussion of *what* you want to learn; then focus discussion on your current patient cases related to that subject."

That's the first words you'll read when you open ICCME's newest publication. From there, it goes on to detail a step-by-step procedure for using a time-tested formula to build a successful, effective, continuing education program in your hospital or medical society—one that emphasizes individual-physician concerns and interests within the institutional context.

Within the new mandatory CME law, in-hospital CME offers a convenient, inexpensive, opportunity to earn required credit. This pamphlet tells *how* to do it in a way that guarantees high quality learning appropriate for sophisticated professionals like physicians.

Other new ICCME publications include . . .

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How to conduct a "what-to-learn" study group, using *Your Personal Learning Plan* as an unusual text/workbook.

Physician & Community Hospital—Partners in CME

By Walter Gasser, M.D., & Mary Anne Stiegemeier, B.J. How Sherman Hospital, Elgin, used shared responsibility and flexibility to develop its CME program and improve patient care.

All ICCME publications are FREE to Illinois physicians and CME sponsors; to obtain any of these new pamphlets, just call us at (312) 236-6110—or write the pamphlet title on your prescription form and mail it to us. You'll *also* receive our new "CME Planning Aids Order Form," listing an extensive collection of original pamphlets and important re-prints.

Illinois Council on Continuing Medical Education

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Get Your Brand of Continuing Medical Education at the AMA's Annual Convention, June 26-30, 1976



Dallas is many things to many people—a center of high fashion, finance, brainpower, big money, sports events, conventions, art, theater....

But, after this June's Annual Meeting, for you Big D is going to stand for Continuing Medical Education—the highest quality C.M.E. and the widest assortment of C.M.E. you've ever experienced!

This meeting features new and/or expanded methods of teaching both inside and outside the classroom. You can spend every day participating in several types of learning situations. For example, there will be audio and tape demonstrations; computer-assisted instruction; pre- and post-tests for self-evaluation. In addition, there will be "hands on" manikin practice and many opportunities to participate in small group discussions or to consult with course instructors and fellow physicians. Naturally, we're repeating a popular feature—medical motion pictures. This year, there will be 30—all scheduled for your convenience.

C.M.E. for Credit—and most of it, except for postgraduate courses, free

To help you fulfill C.M.E. requirements for the AMA Physician's Recognition Award and your state or specialty society, this Annual Meeting offers many opportunities—113 in fact—to earn Category 1 credits. You'll have your choice of 57 postgraduate courses and the majority of 47 scientific sessions are classed for Category 1. Hour-for-hour credit will also be given at the Live Teaching Clinic, Pulmonary Function, Dialogue, and at the 8 telecourses offered in the Convention Center and the Dallas hotels. (The AMA will provide you with a certificate of attendance; make sure you report your credits to your state or specialty society.)

For further information about the courses, sessions, hotel-motel reservations, and AMA Auxiliary activities, please write or phone to:

**American Medical Association/Department of Registration Services
535 North Dearborn Street/Chicago, IL 60610/(312) 751-6187**

Other Highlights

A majority of physicians regard the exhibit area as one of the most important features of AMA meetings. If you happen to be one who values this one-to-one peer communication with exhibitors, Dallas won't disappoint you. There will be 300 exhibits, evenly divided between scientific and industrial. Last, but not least, is the 18th National Conference on the Medical Aspects of Sports. Every year it gets bigger and better—you won't want to miss this year's Conference.

How to fill post-Convention hours, if you have an ounce of energy left

If you've never been to Dallas, you're in for some surprises. Even though you'll see some Texas-style hats and hear quite a few "Y'all's," Dallas is neither typically Western nor typically Southern. It is simply Dallas—a city of fashion, style, flair, fun, and even, grace.

The AMA Auxiliary is planning many events during the Convention. No need to list them here for you can receive the details by contacting the AMA by phone or address as shown below.

Dallas offers a potpourri of entertainment to suit every taste and lifestyle. For animal lovers, there's a Lion Country Safari and a great zoo. If you've never seen a rodeo, don't miss the Mesquite Championship Rodeo. It will give you plenty to talk about! There's a fantastic theatre center and numerous museums for culture devotees. For those who like it swinging and festive, there are clubs, cabarets, and corner pubs. And shopping! Dallas boasts you can find everything from his and her airplanes to unique \$5 gifts. If you've ever seen the Neiman-Marcus catalog, you know that's not an idle boast. Oh, one word about the restaurants: don't come expecting to diet. Dining out in Dallas is an adventure for both the novice and gourmet!

If your angina patient* isn't having 3 out of 4 better days than usual... try Cardilate® (ERYTHRITYL TETRANITRATE)

*Please note: unstable angina patients may be refractory to all long-acting nitrates.

INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset of action is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrates, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilatation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustment of the cerebral hemodynamics to the initial marked cerebral vasodilatation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

SUPPLIED: 10 mg chewable tablets, bottle of 100. Also 5, 10 and 15 mg scored tablets in bottles of 100. 10 mg scored tablets also supplied in bottle of 1,000.

Also available: Cardilate®-P brand Erythrityl Tetranitrate with Phenobarbital* (*Warning: may be habit-forming).

1. Russek HJ: AM J M Sc 239:478, 1960



"Pain days" significantly reduced with Cardilate® (erythrityl tetranitrate) in 48-patient study.¹ Patients on placebo experienced same pain as usual or increased pain 2 days out of 3... compared to 1 day out of 4 while on Cardilate.

Rapid-acting chewable tablets (10mg) preferred by many patients. Should be given before anticipated periods of stress to produce an action within 5 minutes and lasting up to 2 hours. Sublingual tablets also available.



Effective prophylaxis against attacks; increases exercise tolerance. Serious side effects have not been reported in 20 years' clinical use.

Cardilate can save patients money; is less expensive than many popular long-acting nitrates. 20% to 30% savings not uncommon... also helps reduce need for nitroglycerin.



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Do Continuing Medical Education Lectures Bore You?

This reaction has caused the indictment of the lecture as an effective tool on all levels of education. The problem may not be poor production. Consider what you might do to improve your ability to listen more effectively.

It is necessary to distinguish between active listening and passive listening. In listening actively, the individual does so with all of his senses, his attitudes, his beliefs, and his thoughts. In passive listening, the listener becomes merely an organ for the reception of sound and has little personal involvement or live curiosity. Effective listening cannot be accomplished simply by remaining passive and allowing words to pour into your ears. Participation is the key word. Try entering the train of the speaker's thoughts, exploring with him, suggesting lines for further development and making evaluative responses. Listening and asking questions are two processes which should not be separated.

Norbert Winer, in his book *THE HUMAN USE OF HUMAN BEINGS*, makes the following observation: "Speech is a joint game between the talker and the listener against the forces of confusion." You are listening when your full attention is focused on what is being said; but unfortunately, most of us listen through a screen of resistance—a screen made up of prejudices, fears, worries and desires.

Some of the methods of good listening can be cultivated. Active participation is important. You should prepare for listening by anticipating the message and developing a positive attitude toward the speaker and what he has to say. You must be physically alert. Sit up. Look at the speaker. Ask questions. Follow the main ideas.

Relate what you have heard to your future thinking and action. Be alert to all the non-verbal ways by which a speaker communicates his meaning. If you are listening to understand content, you should remember that you think about four times faster than an average person talks. This gives you considerable spare time and what you do with that spare time may be the major problem in listening.

Another prerequisite for good listening is concentration. This is difficult for people accustomed to watching television while they are reading and often eating, drinking and smoking at the same time. With all of this compulsive activity, it is not easy to concentrate on any one thing and give your full attention.

Finally, good listening means being open and flexible to all relevant changes in a given situation. It means giving your speaker the chance to present all his facts and ideas before jumping to premature conclusions or reacting emotionally. Openmindedness is the parallel mentally to open ears physically.

In summary, listening is a very live and active process. It demands much more than remaining quiet so the other person can have his say. It involves active participation, discipline, concentration, patience, freedom from distraction, and openmindedness. There is little opportunity for boredom when you are so actively involved. You may find your reaction to be just the opposite. Comprehension through listening naturally follows this kind of participation.

Ward E. Perrin, D.O.



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Evaluation of a Sensor Pad Apnea Monitor*

BY SHIG YASUNAGA, M.D., AND LOU FEIERABEND, M.D./URBANA

Three types of apnea monitors are available on the commercial market for general use in a newborn nursery: impedance pneumographs, air-mattress monitors, and sensor pad monitors. This paper reports a clinical evaluation of the sensor pad monitor.

Impedance pneumographs monitor respirations through electrodes attached to the infant's chest. The electrodes may cause excoriations of the sensitive skin of the neonate, especially that of the immature, low birthweight infant. Difficulties in electrode contact also result in many false alarms. Disregarding these technical problems, the impedance pneumograph can very accurately monitor the breathing pattern of the neonate.¹

Air-mattress monitors² record respirations as air is displaced from one section in the mattress to another causing air flow over a thermistor. No electrodes are required, and in this regard the air-mattress monitor is more desirable than the

impedance pneumograph.³ However, performance may be unreliable on inclined planes since equal distribution of air over various segments of the mattress no longer occurs and leaks and punctures in the mattress can render it useless. While the monitor sensitivity is adjustable, failure to detect apnea has been reported when sensitivity was set too high and the cardiac impulse caused a false indication of respiratory activity.³

The sensor pad apnea monitor** records respiratory activity from altered pressure on a transducer pad (6¼" x 6¼" x 1/8") placed underneath the neonate. The transducer can differentiate pressure at any location on the pad. This monitor needs no electrodes and is equipped with a fixed sensitivity.



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Materials and Methods: Part One

Sixty-two high-risk infants in the newborn nursery of Jefferson Davis Hospital, Houston, Texas, were monitored for apnea for a total of over 10,000 hours using a sensor pad monitor set for a 20-second alarm delay. Neonates considered at risk for apnea included those with the Respira-

*Presented as an abstract in April, 1975 in Philadelphia, Pennsylvania at meeting of the Society for Obstetric Anesthesia and Perinatology.

**Model RE-134, Electronic Monitors, Inc., Fort Worth, Texas.

tory Distress Syndrome (RDS), traumatic delivery with probable hypoxia, low birth weight (no RDS), sepsis and meningitis. The birth weight and clinical diagnosis of each infant were recorded.

When the apnea alarm sounded a nurse immediately went to the incubator. If the baby was not breathing, the appropriate measures were taken. If the alarm was triggered because the infant had moved off the sensor pad, the infant was repositioned. All alarms were documented by probable cause: APNEA, if the baby was found to be without respirations; OFF THE PAD if the infant had moved off the sensor pad and UNKNOWN if the baby was breathing and correctly positioned on the pad.

Table 1. High-Risk Infants Monitored for Apnea

Clinical Diagnosis	No. of Babies	Total Hours Monitored
Respiratory Distress Syndrome	21	4,163
Aspiration	2	70
Transient Tachypnea	3	592
Pneumothorax, Pneumediastinum	3	433
Meningitis	2	24
Proven Sepsis	2	524
Suspected Sepsis	7	1,797
Multiple exchange transfusions	1	27
Traumatic delivery with probable hypoxia	4	225
C.N.S. hemorrhage (autopsy diagnosis)	1	33
Low Birth Weight (<1500 grams) (no RDS)	3	1,112
Low Birth Weight (1501-2000 grams) (no RDS)	8	824
Other	5	184
TOTAL	62	10,008

Results: Part One

These 62 high-risk infants were grouped by diagnosis and the number of hours each group was monitored were recorded (Table 1). Most of the infants monitored had Respiratory Distress Syndrome. The "other" category included one hydrocephalic infant, two infants with multiple congenital anomalies, one infant with hyperglycemia and one hyperthyroid infant. Fourteen neonates became apneic for at least 20 seconds on one or more occasions (Table 2).

Recorded alarms with the sensor pad monitor are shown in Table 3. Two hundred forty-nine

Table 3. Alarms with Sensor Pad Monitor After 10,008 Hours of Use

Reason for Alarm	No. of Alarms
APNEA	61
INFANT OFF PAD	99
UNKNOWN*	89
TOTAL	249

*The infant was correctly positioned and breathing.

alarms were recorded; in 61 instances the infant was found to be without respirations, 99 times the infant had moved off the pad, and 89 times were of unknown origin. OFF THE PAD alarms occurred on the average once every 100 hours. The incidence of UNKNOWN alarms increased sharply when infant weight was less than 2000 grams (see Table 4).

At no time did the sensor pad monitor fail to alarm during a prolonged apneic period (greater than 20 seconds).

The infant did not need to be completely on the pad for valid monitoring and could be in a

Table 2. Neonates with Documented Apnea

Case No.	Sex	Birth Weight (gms.)	Clinical Diagnosis	Total Hours Monitored	Apneic Episodes
1	M	860	Respiratory Distress Syndrome	55	17
2	M	890	Suspected Sepsis	320	2
3	F	1210	Respiratory Distress Syndrome	1372	3
4	M	1240	Meningitis	12	3
5	M	1270	Respiratory Distress Syndrome	648	18
6	M	1320	C.N.S. Hemorrhage (autopsy diagnosis)	33	3
7	M	1450	Respiratory Distress Syndrome	117	1
8	M	1490	Low Birth Weight (no RDS)	866	1
9	F	1510	Respiratory Distress Syndrome	10	4
10	F	1600	Respiratory Distress Syndrome	344	1
11	M	1710	Respiratory Distress Syndrome	157	3
12	M	1750	Meningitis	12	1
13	M	3010	Respiratory Distress Syndrome	149	3
14	F	4980	Traumatic Delivery (with Erb's Palsy)	15	1

prone or supine position, on an inclined plane, or on his side.

Results: Part Two

One newborn infant (4 kg) was monitored simultaneously with both the sensor pad monitor and an impedance pneumograph. Tracings were obtained from a 100-minutes study of this newborn; one section of this appears in Figure 1. As can be observed, the breathing patterns documented by the sensor pad monitor roughly correlate with those of the highly-reliable impedance pneumograph.

Discussion

The sensor pad apnea monitor performed reliably in this trial of over 10,000 hours by detecting apneic episodes with a minimum of false alarms. A 20-second alarm delay setting was used so that the monitor only recorded apnea lasting more than 20 seconds. False alarms occurred if the baby moved off the sensor pad. These alarms were relatively infrequent. False alarms in infants under 2000 grams may have resulted from: apneic spells greater than 20 seconds in which the infant had begun breathing

again before the nurse reached the incubator as found by Daily, et. al.¹ They found that in premature infants with apneic episodes of 20 seconds or greater,¹ spontaneous respirations were begun in approximately one-third of the instances without any cutaneous stimulus. Another cause for false alarm may have resulted from the failure of the sensor pad monitor to detect shallow breathing. Any increase in sensitivity to record all shallow breathing could be hazardous, resulting in the failure to detect apnea. The fixed sensitivity setting was felt to be adequate. ◀

Acknowledgements

The authors wish to extend their thanks to the nurses of the Intensive Care and Low Birth Weight nurseries of Jefferson Davis Hospital for their assistance with this study.

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Table 4. The Incidence of UNKNOWN* Alarms

Birth Weight (gms.)	Number of Babies	Total Hours Monitored	Number of Unknown* Alarms	Hours Between Unknown Alarms (average)
2501 +	17	2092	2	1046
2001-2500	10	524	1	524
1501-2000	17	2094	28	75
1001-1500	14	4577	53	86
1000 or less	4	721	5	144

*The infant was found to be correctly positioned and breathing.

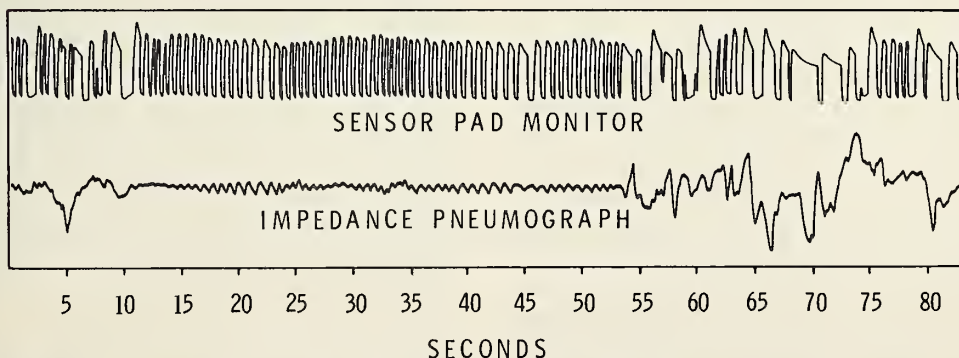
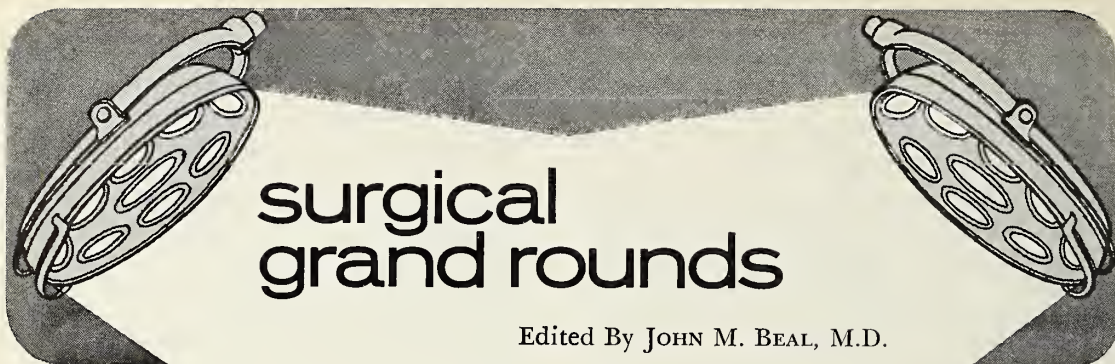


Figure 1. Respiratory activity of a 4 kg. newborn infant at 24 hours of age. A comparison of the impedance pneumograph and the sensor pad apnea monitor.



Surgical Grand Rounds are held weekly on Tuesday at 5:00 p.m. in the Offield Auditorium of the Passavant Pavilion of Northwestern Memorial Hospital. Patient presentations from Northwestern Memorial Hospital and the Lakeside Veterans Hospital form the basis of the discussions. This case report was part of the Surgical Grand Rounds of April 1, 1975.

False Aneurysm

Dr. Mary Welsh: A 68-year-old white woman was in relatively good health until January 2, 1975. While scrubbing her bedroom floor that day, she was stricken by the acute onset of severe, crushing, constricting chest pain, which radiated to the left side of the neck, left shoulder, and left arm. The pain was associated with dyspnea and diaphoresis. The chest pain subsided after 20 minutes, but the left shoulder pain persisted for another 24 hours. During the next three and one-half weeks, she had persistent shoulder pain and two or three times a week she had transient episodes of substernal tightness. In January, the patient began sleeping with two pillows because of "easier breathing". She denied nocturia or paroxysmal nocturnal dyspnea.

At the time of the initial episode, she was taken to the emergency room of a nearby hospital, where electrocardiogram was taken and interpreted as normal. After 3½ weeks of increasing episodes of substernal pain, she was admitted to another hospital for evaluation. Subsequently, she was transferred to the Northwestern Memorial Hospital for cardiac catheterization.

One week prior to admission, patient noted a ten-pound weight gain and the appearance of pedal edema. This was treated successfully with diuretic therapy. She did not have a history of heart disease, heart murmur, diabetes, or hypertension. She had smoked about one-half pack of cigarettes daily for forty years. Her past medical history included peptic ulcer disease with melena in 1958, which did not require transfusion.

Physical examination: blood pressure, 104/70; respirations, 22 and not labored; pulse, 76 with regular rhythm. She was afebrile and not in acute distress. Fundoscopic examination was normal. The neck veins were not distended. Her heart was not enlarged to percussion. She had a grade 2/6 soft, high-pitched, early systolic murmur, best heard at the left lower sternal border and radiating to the apex. Abdominal examination was unremarkable. Peripheral edema was not detected. Admission laboratory work was within normal limits except for mild elevations of serum lipids. LDH, CPK, and alkaline phosphatase; and blood urea nitrogen was 22. The blood count was normal except for a leukocytosis of 14,000. After her admission, she had a chest X-ray and EKG.

Dr. Earl Nudelman: The chest X-ray revealed a 25% increase in transverse cardiac diameter with slight engorgement of the pulmonary vessel compatible with the clinical diagnosis of congestive heart failure. (Figure 1)

Dr. Mary Welsh: The EKG done on admission showed T wave inversion in AVL I and lateral V₆, with ST segment depressions in II, III, AVF, V₃, and V₄ and loss of R in V₁. (Figure 2) The repolarization defects noted were non-diagnostic, since the patient was on digoxin. A QR complex V₁ was felt to represent the residue of an old anterior septal infarction.

Cardiac catheterization was performed and she was found to have elevated end-diastolic left ventricular pressure. She had moderate to severe



Figure 1. Chest X-ray at the time of admission demonstrated increase in transverse diameter of heart.

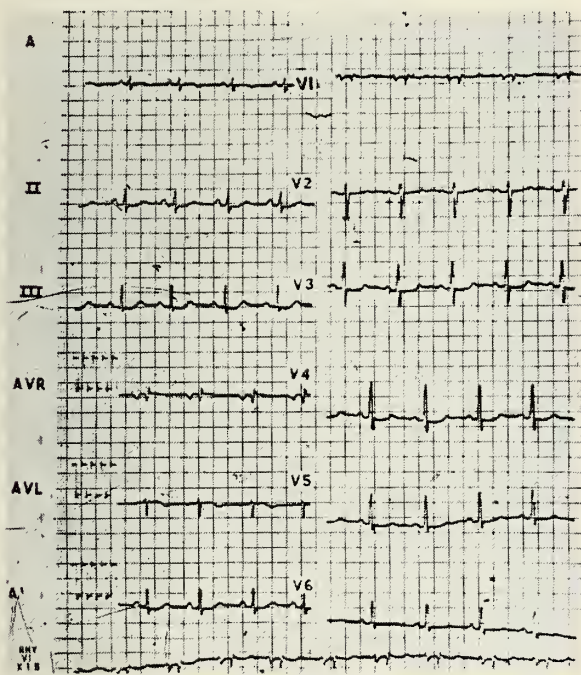


Figure 2. The electrocardiogram was compatible with the diagnosis of an old anterior septal infarction.

mitral insufficiency and on the high free lateral wall of the left ventricle a fairly large aneurysm, which showed marked paradoxical movement.

Selective coronary artery catheterization showed 100% occlusion of proximal circumflex artery and diffuse irregularity in the RCA and LAD. She was re-catheterized for better visualization of the origin of the left ventricular aneurysm, lateral free wall of submitral area secondary occlusive coronary artery disease.

Operation was performed two days later. The chest was opened through a medium sternotomy incision and cardiopulmonary by-pass was instituted. A large left ventricular aneurysm was found. The heart had chronic and active fibrinous pericardial exudates with a rough and red edge where pericardial sac had to be excised away from the cardia surface.

An incision was made into the aneurysm after the patient was put on by-pass pump. The fibrotic wall of the aneurysm was dissected free and the defect was closed using Teflon felt pads and Tevdek® sutures.

Postoperatively, she recovered slowly. She had fever on the basis of pulmonary problems and on the ninth postoperative day she developed atrial flutter which was corrected by digoxin. Improvement was progressive and she was discharged three weeks after operation.

Dr. Harvey Takaki: Ventricular aneurysms are localized protrusions beyond the surface of the left ventricular wall. They generally are a result of a myocardial infarction and may be classified as true or false. The true aneurysms are not uncommon and result from gradually increased bulging of a weakened left ventricular wall. The wall of the aneurysmal sac is composed mainly of fibrous tissue, but elements of myocardium can be identified microscopically. Usually, they have a wide mouth. In contrast, false ventricular aneurysms result from rupture of the ventricular wall with containment proceeding to gradual organization and fibrosis of the contained hematoma. These are made up entirely of fibrous tissue, often have a narrow mouth and no elements of myocardium can be identified histologically in the wall.

This patient, histologically, had a false ventricular aneurysm. Functionally, both true and false aneurysms exhibit paradoxical motion, thereby decreasing the effectiveness of the remaining functioning muscle and possibly resulting in heart failure. In addition, they both may harbor mural thrombi and serve as a source of peripheral emboli. Their behavior is entirely different, however, with regard to potential for rupture. Although true aneurysms may occasionally rupture early in their development, (two to

(Continued on page 460)

Sudden Infant Death Syndrome

A New Hypothesis

BY HARVEY KRAVITZ, M.D. AND ROBERT G. SCHERZ, M.D./CHICAGO

The sudden infant death syndrome is the leading cause of death between four weeks and twelve months of age and is the second leading cause of death in children between one week and fifteen years of age ranking behind accidents.¹ Despite a decade of intensive research the etiology and prevention of SIDS continues to defy a solution. Beckwith² has listed 73 theories to account for this syndrome. Recently two new theories of SIDS have been proposed which appear to have great merit.

New Theories

In 1975, Tonkin³ proposed that airway obstruction in the posterior pharynx can result from certain anatomic peculiarities of the human infant. Airway obstruction and subsequent SIDS may be facilitated by pharyngeal relaxation during REM sleep. Tonkin also states that in the face down and prone position a hypermobile mandible would be vulnerable to displacement by pressure from the infant's own head weight on the mattress. The posterior movement of the tongue and soft palate may result in oropharyngeal airway obstruction. Beckwith² commenting on this theory states that his studies in 1973 showed that the posterior pharyngeal air column disappears when the head is flexed or when the body is in the prone position with the face straight downward. On the basis of these findings Beckwith states that Tonkin's theory of airway obstruction during sleep should be given serious consideration in future research.

Tonkin's theory has one defect. If REM sleep were of prime importance and the only trigger factor, deaths would be most frequent in the new-

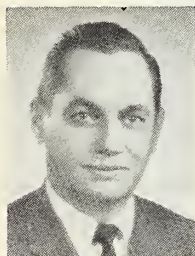
born period and decreased in frequency throughout the first year of life. The literature shows that the first few weeks of life are almost free of the SIDS.^{1,4}

Bergman's study in 1972⁴ showed that of 170 babies with SIDS, 51 of the infants were put to bed on their stomach with the face to one side and were found to be face down when the SIDS was discovered. Eighty-five babies were found dead lying in the prone position with their face to one side, while 4% were on their backs and the rest on their sides when found dead. This data does not refute or substantiate Tonkin's theory.

Another New Theory

In 1974, Aaneland⁵ reported a new theory of SIDS. He stated that the following factors are present in 90%-100% of cases of SIDS: (1) the body is lying in a horizontal position in bed; (2) the baby is quietly asleep for some hours, (3) the death is a silent and unexpected event, (4) the baby is clothed and covers are wrapped around the child, (5) the infant is helpless and somewhat weak, and (6) a greater or lesser degree of interstitial edema is found in the lungs. He believes that the infant develops interstitial edema in the lungs while lying in the horizontal position, the interstitial edema results in hypoxemia and death.

Aaneland points out the fact that if the theory is right, the fatal event should very seldom occur when (1) the child is out of bed, (2) the baby is crying (when the edema would be driven from the chest), (3) the infant is naked (heavy covers, especially in the winter season, constricting clothes and bulky nappies under the buttocks



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would tend to drive more blood into the thoracic cavity), (4) the infant sleeps with the upper half of the body elevated, (5) the infant has strength enough to get out of the flat recumbent position, (6) there has been insufficient time since washing and feeding for enough edematous fluid to gather, and (7) the infant is hungry and does not sleep so quietly and deeply as when the stomach is full of milk.

One of the authors (H.K.) had also noted that almost all cases of SIDS reported in the literature were found in the horizontal position. This is not surprising since the SIDS syndrome was originally called cot death and later crib death. Although Beckwith⁶ has reported one case of SIDS occurring in a stroller, we were not able to find one documented case of an infant dying of SIDS in a reclining position, in a high chair, infant seat, Swingomatic (TM) or a car seat, occurring in the literature or in our practice. For the past 12 years one of us (H.K.) has given all mothers of newborns instructions to elevate the head of the bed one to two inches, and encourage parents to keep infants in infant seats. During this 12 year period we have had no cases of SIDS in the 1800 infants we have followed. Theoretically five cases of SIDS should have occurred during this period.

In 1974 we initiated a study of the sleep habits of a large number of infants from different socio-economic backgrounds. One of the prime objectives was to determine whether infants sleep a significant amount of time in the semireclining position.

Methods

The sleeping habits of 426 infants were studied. A questionnaire was filled out for each infant. Information was obtained on the type of infant bed used and the location of the bed during daytime naps and night sleep, the distance the parent was from the infant, whether the parent slept with each infant during daytime naps. In addition, the questionnaire obtained information on the use of infant seats and the duration of sleep and the number of days each infant slept in the infant seat. Data was obtained on the location of the infant seat. The same questions were recorded for time spent sleeping in an infant car seat, high chair, Baby Tenda (TM) or Swingomatic (TM).

Results

The results summarized in Table 1 show that

Table 1
Number of Infants Sleeping in Reclining Devices

	Number Infants	Used		Sleep in		Sleep in		Sleep in	
		No.	%	Infant Seat	%	Swingomatic	%	Car Seat	%
Inner City	207	57	27.5	10	4.8	—	—	—	—
Suburban	154	66	42.8	44	28.5	12	7.7	7	4.5

in the 207 infants comprising the inner city group, only 57 (27.5%) were provided with infant seats. Only 10 (4.8%) mothers of this group reported that their infants slept in a semi-reclining position for a significant period of time in the first six months of life. In the 154 infants of the more affluent suburban group, 66 (42.8%) infants had infant seats, but only 44 (28.5%) of the group slept in them in the first half of year (Table 1). In addition, 12 (7.7%) of the suburban group slept in a Swingomatic and 7 (4.5%) of this group fell asleep in car seats. The rest of the results on the questionnaire will be reported elsewhere.

Discussion

The results show that a significant number of infants in the suburban group do fall asleep in infant seats, car seats and Swingomatics (TM). A considerably smaller number of infants in the inner city group slept in infant seats. Many studies have shown a significantly higher incidence of SIDS in poorer socio-economic groups.^{4,7-9} Whether this is due to the lack of infant seats and other apparatus which allows for elevating the head or to other factors is not known.

As has been mentioned previously, SIDS has been reported in the literature to occur in the horizontal position in almost all cases. The fact that there has been only one reported case of an infant dying in a stroller of SIDS, presumably in a semi-reclining position, is in our opinion of significance.⁶

We propose that the semi-reclining position is a safer sleep position than the horizontal position. We believe that the possibility of an anatomical shut-off of the airway is less likely to occur in the semi-reclining position than when the infant is in the horizontal position. If an infant is lying supine in a 20-30 degree semi-reclining position, this would tend to decrease the posterior movement of the mandible, tongue and soft palate lessening the chance of oropharyngeal airway obstruction, because the resultant force would be directed 20-30 degrees away from the

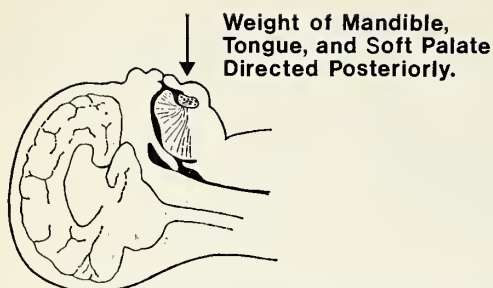


FIGURE 1. Sagittal Section of Newborn's Skull in the Supine Position Lying Horizontally with Mandible, Tongue, and Soft Palate Moving Posteriorly to Obstruct the Oro-Pharyngeal Airway.

vertical plane. (Figs. 1-2) If the infant is face down in the prone position the weight of the head, which is heavier in infancy relative to the total body weight, could force the movable mandible, tongue and soft palate posteriorly resulting in possible airway obstruction and the SIDS. If the infant is face down in the prone position but also in a 20-30 degree semi-reclining position the posterior movement of the mandible, tongue and soft palate would be decreased since the resultant force would be directed at an angle 20-30 degrees away from the vertical plane, thereby decreasing the chance of airway obstruction. (Figs. 3-4)

Aaneland's theory of interstitial edema developing in the horizontal position and being relieved by sitting an infant in a vertical position deserves consideration. If his theory is correct, placing the infant in a semi-reclining position could minimize interstitial edema of the lungs and thereby prevent SIDS.

Conclusion

As has been previously mentioned, one of us (H.K.) has recommended to all mothers of newborn infants that the head of the bed be raised 10°-15° and that infants be kept in infant seats. A study of infants in the head raised position compared to those in the horizontal position

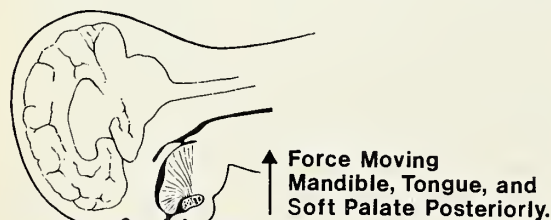


FIGURE 3. Sagittal Section of Newborn's Skull Face Down in the Prone Position Lying Horizontally with Mandible, Tongue, and Soft Palate Moving Posteriorly to Obstruct the Oro-Pharyngeal Airway.

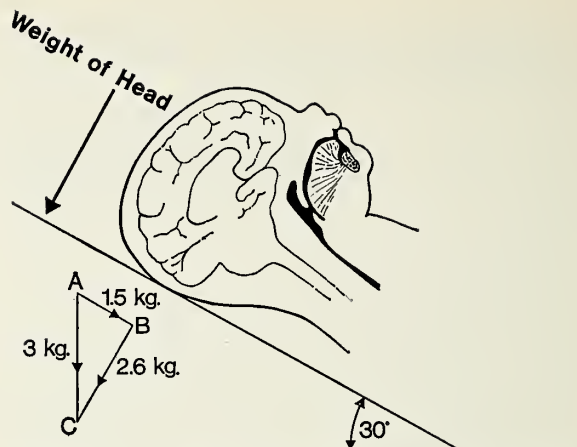


FIGURE 2. Sagittal Section of Newborn's Skull in the Supine Position Semi-Reclining at a 30° Angle with Decreased Posterior Displacement of the Mandible, Tongue, and Soft Palate and with No Airway Obstruction.

failed to show any difference in the number of episodes of apnea, regurgitation, vomiting, cyanosis or choking episodes in the first three days of life.¹⁰ Despite these negative findings in the newborn period, we have continue to recommend that the head of the infant's crib be raised 10°-15° throughout the first year of life.

Unfortunately infants tend to slide down a regular crib if the elevation is increased at 30°. If the elevated position of the head in relation to the body is of critical importance, infant cribs would have to be redesigned with foot rests and crotch straps much like infant seats are now designed, to allow increasing the angle of elevation

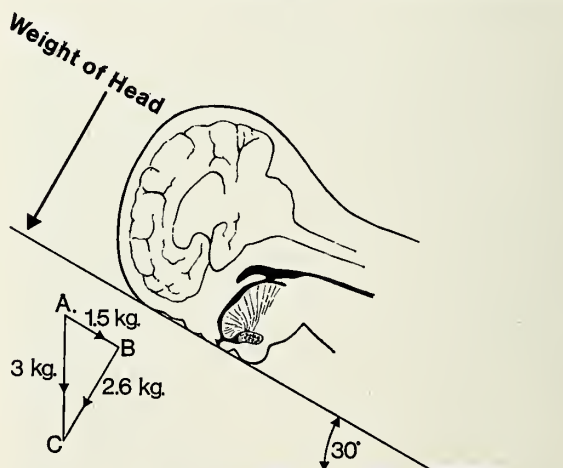


FIGURE 4. Sagittal Section of Newborn's Skull Face Down in the Prone Position Semi-Reclining at a 30° Angle with Decreased Posterior Displacement of the Mandible, Tongue, and Soft Palate and with No Airway Obstruction.

on the head side of the bed. Infant seats would have to be more widely used in all socio-economic groups.

Much more basic work is needed to determine the effects of body position on the infant's airway to discover what is the optimal physiologic or the least dangerous position in which to place an infant. Until this basic research is done to confirm or refute our theory we will continue to advocate that the head of the cribs of all infants be elevated. ◀

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Summary of IDPH Sudden Infant Death Syndrome Program

By JAN AGEE, HEALTH EDUCATOR, IDPH

Approximately 10,000 infants die suddenly each year in the United States without any discernable cause. An apparently healthy infant, usually between three weeks and six months old, is put to bed without any symptoms to indicate that something is wrong. Some time later, without warning, the child is found lifeless.

These children are victims of the Sudden Infant Death Syndrome (SIDS), a disease which occurs once in every 350 live births. Although this disease has apparently been occurring throughout recorded history, SIDS can neither be predicted nor prevented.

Because of the suddenness and the ambiguous nature surrounding SIDS, there are widespread misconceptions about this disease, both from health professionals and the general public. The misunderstanding even more profounding plagues the parents of SIDS victims, who feel guilty and tormented at the loss of their child. In order to lessen these guilt reactions and dispel SIDS myths, it is necessary to develop a professional management system to handle SIDS cases.

In Illinois, such a system is being designed by the Illinois Department of Public Health. The Department was recently issued a grant from the federal government in order to develop a network of services in the project area which would include identification of all SIDS deaths, training and educational programs designed to assist professionals with an understanding of

SIDS, and a counseling component for families who have lost a child to SIDS.

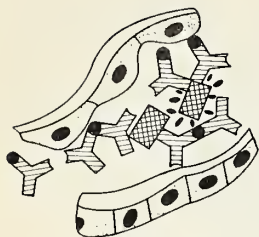
When an SIDS incident occurs, the project is encouraging the use of SIDS as a cause of death as well as promoting autopsies as a means of identification.

Training and educational programs are being developed for a number of professionals often involved in an SIDS case. These programs include physicians, nurses, emergency room personnel, ambulance attendants, policemen, firemen, coroners, funeral directors, clergy and social service workers.

The geographical area encompassed by the Department project would cover all counties except Cook, DuPage, Will, Lake, Kane, McHenry, Winnebago, Boone and Kendall. These nine counties are being served by a similar project under the direction of the Loyola Medical Center in Maywood, Illinois. We have a mutual sharing of information with Loyola and will be asking the SIDS parents in the remaining geographical areas to participate in the Loyola research project.

There is a need to develop a comprehensive SIDS program throughout the state. To begin the program development, seven counties have initially been chosen. This selection was based on geography and incidence of post neonatal deaths. The implementation will then be expanded throughout a number of areas.

The IDPH-SIDS welcomes comments and suggestions concerning any aspect of the program. ◀



Seminars In Immunopathology and Oncology

RICHARD J. ABLIN, PH.D., CONTRIBUTING EDITOR

Transfer Factor

BY PETER BARAM, PH.D.

Dialyzable Transfer Factor

The transfer of delayed type hypersensitivity (DH) using intact white blood cells was first demonstrated by Landsteiner and Chase.¹ Lawrence² latter demonstrated that lysates prepared from human peripheral white blood cells transferred donor specific DH to human recipients. Lawrence et al.³ subsequently demonstrated that transfer capacity could be found in the dialysate when the white blood cell lysates were dialyzed against distilled water. He referred to this biologically active preparation as dialyzable transfer factor (TF_d). The three most unique features of TF_d were: 1) the apparent capacity to transfer donor specific hypersensitivity with low molecular weight material, 2) the persistence of the hypersensitive state in the normal recipient for several months or years indicating active rather than passive sensitization, and 3) the temporary reconstitution of immunologic competence in some immunodeficiency states.

Non-dialyzable Transfer Factor

The transfer capacity of the human leukocyte dialysate was verified by Baram and Mosko.⁴ Using exclusion chromatography they chromatographed the TF_d on Sephadex G-25 and found transfer activity in a fraction of <10,000 m.w. In addition, Baram and Mosko⁴ and Baram et al.⁵ reported that the non-dialyzable portion of the

human white blood cell lysate also had the capacity to transfer donor specific DH to human recipients. This preparation was referred to by them as non-dialyzable transfer factor (TF_{nd}). The components ranged in molecular weight from 100,000-300,000. TF_{nd} recipients maintained the transferred hypersensitive state for several months. This indicated that TF_{nd} also induced active sensitivity in the recipients. There have been no studies to indicate the comparable effectiveness of TF_{nd} to TF_d in the reconstitution of immunocompetence in immunodeficient states.

Clinical Value

Potentially, TF preparations appear to have value both as immunotherapeutic agents in humans and as tools for investigating the mechanisms of the induction and expression of cell mediated immunity (CMI) at a cellular and sub-cellular level. Many investigations are currently in progress on the clinical value of TF_d: 1) tumor immunotherapy, 2) treatment of chronic microbial or viral infections, 3) reconstitution of immunodeficient patients, and 4) treatment of autoimmune diseases. The reports that TF_d induces temporary immunologic competence and/or clinical improvement in recipients having a variety of distinct diseases, suggests that the response to TF_d may be very complex, and may be due to many distinct components in the TF_d preparation. The transfer of specific hypersensitivity may be one of a number of host responses to TF_d. Adjuvant action,^{6,7} chemotaxis,⁸ elevation of the number of T-lymphocytes,⁹ and other effects have also been reported in TF_d recipients.

Composition and Biological Activity

TF composition and biologic activity depend upon the level of donor DH, the tissue from which the cells have been obtained, and the method of preparation. For the preparation of



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human TF_d and TF_{nd} peripheral white blood cells are usually used.^{3,4} None of these cell preparations have been fractionated to yield pure populations of T or B lymphocytes or other leukocytes. Therefore, individual preparations of TF_d and TF_{nd} may vary considerably in composition and biologic activity, depending on the variety of cells and their percent contribution to the total lysate. More recently, investigators preparing TF_d from human leukocytes have used continuous cell separators for collecting lymphocytes or have enriched the mononuclear cell preparation by Ficoll-Hypaque density gradient centrifugation of the blood. Since these procedures favor the accumulation of large numbers of mononuclear cells, it is possible that TF_d and TF_{nd} may be lymphocyte products.^{10,11} However, this has not yet been determined.

Preparation

The procedures used to prepare TF_d and TF_{nd} are usually those originally formulated by Lawrence³ using peripheral blood leukocytes. Washed centrifuged white blood cell pellets may be disrupted by freezing at -70° C. and thawing at 37° C. Distilled water lysis or sonication have also been used to disrupt the cells. The lysates are then dialyzed. The dialyzable portion contain T_d and the non-dialyzable portion of the lysate contains TF_{nd} . Each preparation is usually frozen and lyophilized. They can be reconstituted in small volumes of saline and sterile filtered before injection.

Attempts to define and quantitate a unit of TF_d and TF_{nd} have resulted in a variety of definitions. Investigators have used one or more of the following criteria to define a unit of TF_d or TF_{nd} : 1) the TF obtained from the total number of leukocytes derived from 500 ml of blood, 2) the amount of TF obtained from a preparation of white blood cells, spleen, peritoneal exudate or lymph node cells having a known number of mononuclear cells, 3) a quantity of orcinol reacting material (reflecting possible RNA concentration obtained from leukocytes, and 4) a quantity of protein obtained from the leukocytes. Difficulties in defining a unit of TF_d or TF_{nd} arise from an inability to: define the level of DH required of the TF cell donor, agree upon the biologic activity to assay, and develop a reliable and reproducible *in vitro* assay procedure.

Where it is the intent of the investigator to use TF_d or TF_{nd} to transfer donor specific hypersensitivity, it is important that the donor be exquisitely sensitive to the antigen. In the human system, for example, transfer of PPD hypersen-

sitivity is most readily accomplished using TF_d and TF_{nd} prepared from the peripheral blood leukocytes of donors having a positive skin reaction of 50 mm or greater of induration to 0.0002 milligrams of PPD. Leukocytes obtained from weak skin reactors, having 10-20 mm of induration, are not a good source of TF_d and TF_{nd} .

Although TF_d and TF_{nd} appear to be relatively stable, the types of cells and the manipulation involved in the production of TF may result in considerable variation in composition or biological activity. Huard and Baram⁶ compared 5 lots of human TF_d . The composition of the five pools differed greatly. Protein concentration ranged from 3.2-31.8 mg. The concentration of orcinol reactive material varied from 0.29-2.03 mg. On thin layer silica gel chromatography the samples of the five pools were observed to have the same number of components. A minimum of 10 components were detected. However, there were obvious differences in the intensity of staining with ninhydrin that did not reflect the concentration of proteins.

These variations in TF_d compositions may be responsible for the difference in effectiveness of separate lots of TF_d used by investigators. Standardization will be more feasible if purification studies make possible the use of fractions with distinct biologic activities.

Quantitation

Early attempts to quantitate TF in the human were based on the number of donor blood leukocytes needed to produce a lysate which could transfer donor sensitivity to the normal recipient. Lawrence³ was able to demonstrate total body DH in normal human recipients using TF prepared from 8.5×10^7 blood leukocytes. Many of the recipients remained hypersensitive for several months. However, the number of leukocytes or lymphocytes necessary to transfer donor specific DH depends upon the degree of DH of the donor and the immunocompetence of the recipients. In addition, where effects are desired other than the transfer of specific DH, the number of leukocytes or lymphocytes needed may be different. Investigators have variously defined the unit of TF_d as the amount of dialysate obtained from 5×10^8 - 6×10^9 leukocytes. Transfer of DH is not always accomplished with a single or even multiple injection.

Models

Two types of human transfer factor models have been investigated. Leukocyte donors for

TF have primarily been "normal" immunocompetent individuals. Recipients have been either normal individuals or immunologically compromised patients with other associated disease processes. It is essential to distinguish between the transfer of donor DH to immunocompetent recipients and the transfer to recipients who are immunologically compromised. Potential recipients who are immunocompetent and are negative *in vivo* for DH and by *in vitro* tests for CMI to the antigen specificity of the TF, are usually presumed not to be sensitive to that antigen. Such individuals may have experienced the antigen previously and have low levels of sensitivity. The injection of TF may result in: 1) the transfer of specific hypersensitivity, 2) specific augmentation of existing sensitivity, 3) non-specific adjuvant like effects for antigen used to skin test the recipient.

In the immunodeficient patients, detectable abnormalities may be due to a defect at any number of levels. The recipient may indeed have had previous knowledge of the antigen for which the TF has specificity and may be sensitive to it, but the defect prevents expression of the response to the antigen. Unless the TF preparation has the properties necessary to correct the patients' defect (properties unrelated to the transfer of donor DH) the expression of DH in the transfer factor recipient cannot be observed.

Specific Transfer

Most of the reports demonstrating specific transfer to immunocompetent humans have been to naturally occurring antigens such as streptococcal M substance, PPD, coccidioidin and diphtheria toxoid. Transfers were initially performed using leukocyte lysates (TF_L). Recipients were injected with TF_L and challenged intradermally forty-eight hours later with antigen to which the leukocyte donors were sensitive. Recipients developed typical DH skin test reactions. Normal recipients remained sensitive to the antigen for several months to more than two years. The long duration of the hypersensitive state indicated that the recipients were actively sensitized.

Transfer Factor Immunotherapy

Transfer of DH or modification of immunodeficiency syndromes have been reported in five types of immunological abnormalities: 1) inadequate CMI in response to micro-organisms caus-

ing chronic infectious diseases, 2) genetically inherited immunologic deficiency states, 3) immunodeficiencies or undertermined origin, 4) autoimmune diseases, and 5) unresolved tumors. As indicated earlier, it is difficult at this state of our knowledge to ascertain if TF_a causes the same kind of response in immunologically compromised patients as in normal individuals. The transfer of specific donor hypersensitivity may be of no importance in patients with immunodeficiency diseases.

Other "non-specific" effects of leukocyte dialysate may be responsible for effects observed in immunologically compromised patients. Investigators treating immunologically compromised patients must recognize and monitor at least three distinct effects which TF_a may have on the patients: 1) transfer of donor DH, 2) reconstitution of recipient impaired immunocompetence, and 3) the alteration of the clinical condition of the patient. It is possible to effect transfer and immunocompetence without altering the patient's clinical condition.

The response to TF_a by compromised patients differs from the response of normal individuals: 1) donor DH is not transferred with the same frequency, 2) the transferred hypersensitive state may persist only for a few weeks to a few months and 3) *in vitro* assays for cell mediated immunity and *in vivo* skin test responses to specific antigen may not correlate with each other.

Patients receiving coccidioidin-TF_a or candida-TF_a may subsequently develop positive DH reactions upon challenge with the specific antigen but, the lymphocyte transformation and/or the migration inhibitory factor (MIF) assay are discordant.^{10,13,14-16} Kirkpatrick et al.¹⁰ reported on a group of candidiasis patients who before receiving TF_a, were anergic by skin test, lymphocyte transformation and indirect MIF assays to candida and other antigens. Many of the patients did not respond to attempts to sensitize them to dinitrochlorobenze (DNCB). Treatment of patients with candida-TF_a usually resulted in the development of DH to antigens to which the TF_a cell donor was sensitive. Such reactivity persisted for one week to 60 days. MIF production by the patient lymphocytes stimulated with candida antigen also became detectable after TF_a therapy. However, *in vitro* lymphocyte transformation induced by candida antigen after TF_a therapy did not correlate well with skin test results or MIF production. Conversion of skin test reactivity,

MIF production and lymphocyte transformation do not have a consistently high correlation. Nor do the patients always show clinical improvement.

TF_a Therapy for Immunologic Defects

The immunologic defect is not always correctable by TF_a therapy. It is possible that the amount of TF_a given is inadequate for some patients.¹⁷ The individual batches of TF_a should be assayed for biologic activity on animal models to achieve some degree of standardization.

Transferring specific hypersensitivity to patients who are anergic may also cause undesired effects temporarily. Bullock et al.¹⁸ treated lepromatous leprosy patients with TF_a derived from the leukocytes of donors sensitive to *M. leprae* antigens. Four patients developed erythema nodosum and three developed fever and arthralgia. Hastings et al.,¹⁹ however, found marked clinical improvement in patients treated with TF_a.

Tumor patients also have been demonstrated to have impaired CMI. Reports indicate that TF_a may be beneficial as an immunotherapeutic agent. Again, unlike normal recipients who remain sensitive for extended periods after receiving TF_a, tumor patients must be treated periodically with TF_a. The quantity and frequency of TF_a administered and the clinical response obtained usually varies with investigators.

Levin et al.²⁰ reported on a series of osteogenic sarcoma patients treated with TF_a. Following removal of the tumor, patient lymphocytes were found to be less cytotoxic for tumor cells. TF_a derived from 1×10^9 peripheral blood leukocytes of tumor antigen-sensitive donors was injected into patients twice weekly. Treatment with tumor specific TF_a resulted in an elevation of lymphocytotoxicity to tumor cells *in vitro*. Non-specific TF_a injections depressed the patients lymphocytotoxicity response. Eight patients in this series were stabilized by tumor antigen specific TF_a. The condition of four continued to deteriorate.

Price et al.²¹ treated six patients having malignant melanoma with TF_a. Patients received TF_a obtained from 1×10^9 lymphocytes twice weekly for three weeks. The TF_a was prepared from the lymphocytes of patients who had recovered from malignant melanoma, close relatives or other individuals whose lymphocytes were cytotoxic to culture of melanoma cells. No clinical improvement was observed in these patients.

Between the two distinctly different success rates in treating different tumors, other prelimi-

nary reports indicate varying degrees of success in treating tumors with TF_a.²²⁻²⁴ A number of studies are now in progress of the value of TF_a in the treatment of cancer. It is perhaps too early to evaluate this form of immunotherapy because of the large number of variables: the type of tumor, the level of tumor burden, the immunologic competence of the patient, the general physical condition of the patient, the level of donor hypersensitivity, the quantity of TF_a used in treating the patient, and the duration of treatment.

Treatment of Immunodeficiency Disease

A variety of congenital immunodeficiency diseases have also been treated with TF_a: Wiskott-Aldrich syndrome,²⁵⁻²⁸ swiss-type agammaglobulinemia,²⁹ ataxiatelangiectasia²⁵ (AT), X-linked immunodeficiency,³⁰ and others. Results have been variable.

Spitler et al.²⁸ reported that 14 of the 28 patients having Wiskott-Aldrich syndrome (WAS) responded to TF_a therapy. The patients showed clinical improvement, developed skin reactivity and MIF responsiveness to antigens to which the TF_a lymphocyte donor was positive. The authors suggested that there may be two forms of Wiskott-Aldrich syndrome. Those patients who respond to TF_a have below normal levels of blood monocytes with receptors for gamma globulin (IgG). Even those patients responding to TF_a still may retain some evidence of the immune defect. Lymphocytes from patients treated with TF_a can be stimulated to synthesize MIF *in vitro*. They may not, however, respond by lymphocyte transformation. Transfer of specific hypersensitivity and the temporary reconstitution of the immune defect may be due to two or more distinct components of TF_a.

Griscelli et al.²⁵ treated four patients having WAS, five having AT, and two with variable hypogammaglobulinemia. Some patients did convert from negative to positive skin reactors after receiving TF_a from donors sensitive to PPD, candidin or SK-SD. As other investigators have also noted, in some of these patients *in vitro* assays of CMI (tritiated thymidine incorporation) also became positive, but did not always correlate with conversion of skin reactivity. Some clinical improvement was noted in patients. Two of the four WAS patients improved. AT patients had no improvement in neurologic signs. Patients with combined immunodeficiency disease showed no clinical improvement or change in delayed hypersensitivity status. Griscelli questions the

role of TF_a in transferring donor specific hypersensitivity. He suggests that TF_a may augment an already existing hypersensitivity.

Other immune deficiency states may not respond at all to TF_a . Lawlor et al.³¹ could not reconstitute DH or *in vitro* correlate activity in patients with Nezelof syndrome, nor was there any clinical improvement in these patients.

In some instances TF_a appears to be more effective in reconstituting DH responses than are intact lymphocytes. Patients with Hodgkins disease have impaired CMI. Attempts to restore DH by transfusion of leukocytes from normal donors have not been successful. The inability to reconstitute Hodgkin's disease patients with peripheral blood donor lymphocytes indicate a defect of greater magnitude than the absence of a sensitive lymphocyte population. Kahn et al.³² injected TF_a into eight Hodgkin patients in remission, following chemotherapy or radiation-therapy and chemotherapy. Seven patients also in remission, did not receive TF_a and were used as controls. The patients received TF_a over varying periods of time. Minimum total TF_a dose given to a patient was obtained from 30×10^8 leukocytes. The maximum TF_a dose given was obtained from 49×10^8 leukocytes. The authors measured DH by skin testing patients to mumps, PPD, histoplasmin, dermatophytin, varidase, and DNCB. Transfer of DR was achieved in five patients. Two patients developed DH to antigens to which the TF_a donors had demonstrated on DH. It is possible that either the donors or recipients may have had a low level of DH to these antigens. Control patients receiving no TF_a also demonstrated some skin reactivity to the anergy panel of antigens.

Transfer of DH has been demonstrated in many species: non-human primates, guinea pigs, rats, dogs, rabbits and cattle. In human TF studies, peripheral white blood cells have been the primary source of TF_a and TF_{nd} . However, in other species, peritoneal exudate cells, lymph node cells, and lung alveolar washings as well as peripheral white blood cells have been used as a source of TF_a and TF_{nd} . There are no reports evaluating thymus or bone marrow cells, as a source of TF.

Non-human primates have recently been used as models for the *in vivo* as well as *in vitro* study of TF_a and TF_{nd} . The non-human primate models offered many advantages over other species models in that the animals are phylogenetically closely related to humans. Responses in these animals may more closely approximate those ob-

tained in humans. Because of the antigenic relatedness of many tissues, human autoimmune disease could be studied. TF_a or TF_{nd} prepared from the leukocytes of patients with cell mediated autoimmune disease could be used in an attempt to transfer the disease to nonhuman primates.

Isolation and Identification of TF_{nd} and TF_a

It is, of course, important to determine the composition of both TF_{nd} and TF_a . Fractionation and isolation of TF preparations could permit their quantitation. Their clinical use and value could then be better monitored and evaluated. The relationship of TF_{nd} and TF_a to each other could be determined. Finally, purified preparations of TF would be of inestimable value in studying T cell recruitment, and the mechanism by which T cells recognize antigen.

Progress in the purification of TF_{nd} and TF_a has been exceedingly slow. This has been due to the large number of recipients needed for the assay of samples prepared in the fractionation studies, and the difficulty in establishing specific reliable *in vitro* assays.

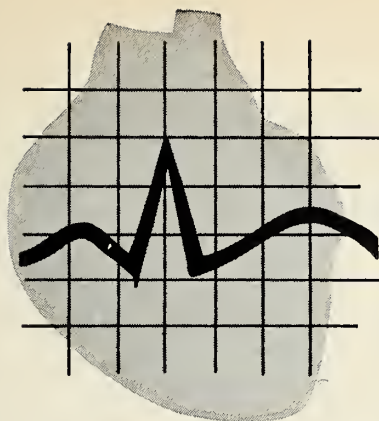
A number of investigators have reported on the fractionation of human and non-human TF_{nd} ^{4,5} and TF_a using either Sephadex G-200, Sephadex G-25 or G-10 or Bio-gel.^{4,5,7,8,14,15,33,34}

TF_{nd} contains immunoglobulins and other proteins. It also contains large quantities of degraded RNA; approximately 4S. No intact RNA is detectable.

TF_a , regardless of the species source, contains polynucleotides, polypeptides and inorganic salts. Although TF_a preparations are not degraded by ribonuclease or proteolytic enzymes, one cannot rule out the likelihood that TF_a may be a partially hydrolyzed fragment resistant to further enzyme degradation. As with TF_{nd} , there is uncertainty of the molecular weight. Molecular weight determinations varying from 2,000 — <10,000 have been reported. These have been usually made on the bases of Sephadex chromatography and ultracentrifugation studies. Since the composition of TF_a is also unknown, one can only ascertain at the present time that TF_a has a low molecular weight.

There is no evidence that TF_a contains antigen. This, however, does not rule out the possibility that very small undetectable quantities of antigen are present in the TF preparations which may be sufficient to sensitize the recipient.

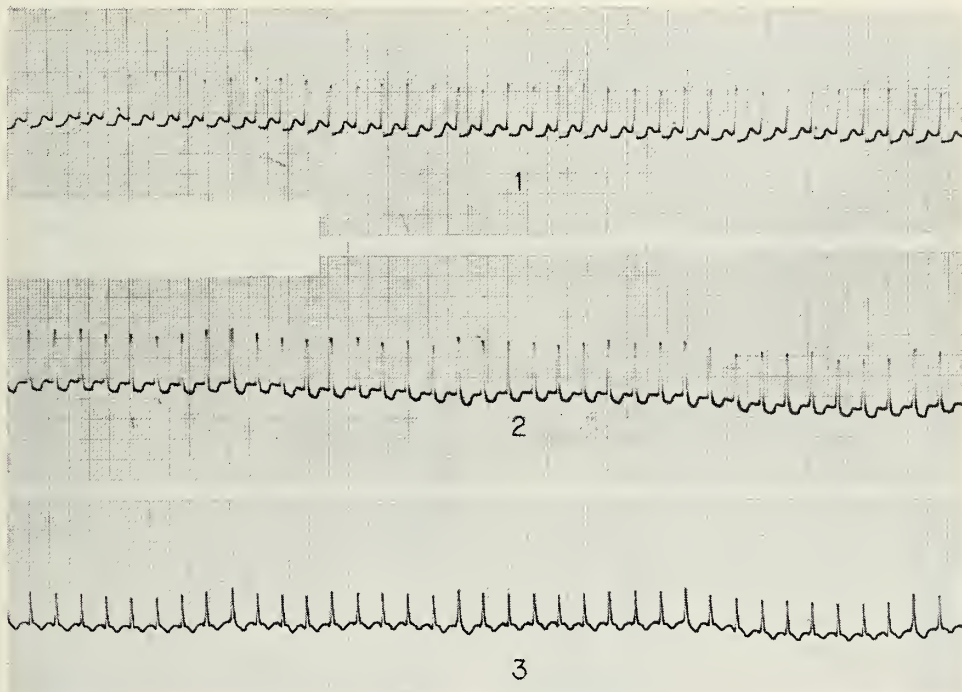
(Continued on page 484)



ekg of the month

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A thirty-three years old lady presented to the emergency room on advice of her physician for an examination and an electrocardiogram. For the past year she had been bothered by intermittent palpitations. She denied chest pains, light-headedness, or other symptoms during the palpitations. They seemed to be associated with emotional upset. The spells of palpitations were coming more frequently and were lasting up to one hour. Her physical examination and a chest X-ray were normal. This was the first opportunity to record the ECG during palpitations. The simultaneous three lead rhythm strip was obtained.



Questions:

1. The ECG shows:

- A. Supraventricular tachycardia.
- B. Junctional or nodal tachycardia.
- C. Atrial tachycardia.
- D. Ventricular tachycardia.
- E. ST segment depression of severe ischemia.

2. Treatment of this arrhythmia problem:

- A. Would depend on the associated heart disease.
- B. Could include tranquilizers and sedatives.
- C. Could require digitalis.
- D. Could include carotid sinus massage, the Valsalva maneuver, or other vagal maneuvers.
- E. All of the above.

(Answers on page 484)

Treatment of Hospitalized Narcotic Addicts

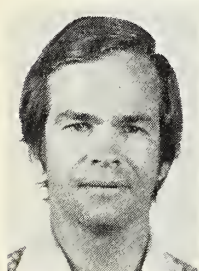
By JOHN M. FULTZ, M.D., SUSAN ROUDA, M.S.W. AND
EDWARD C. SENAY, M.D./CHICAGO

Opiate-dependent patients who are hospitalized for medical, surgical, or obstetrical reasons require proper management of their addiction in addition to care of their presenting illness. Guidelines are offered for methadone support during hospitalization for the patient enrolled in a treatment program and for the street addict. The important clinical features of withdrawal reactions are outlined, and a method is presented for establishing an initial and supportive dose of methadone for street addicts. The use of analgesics in the addicted patient, the treatment of methadone overdose, and some problems in the management of mixed-drug abuse are discussed.

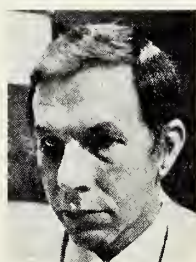
The proper management of the hospitalized medical, surgical, or obstetrical patient who is addicted to narcotic drugs requires a thorough knowledge of Food and Drug Administration (FDA) regulations, methadone maintenance and detoxification procedures, and the community resources available for outpatient care of drug-dependent patients. Medical complications and psychological disorders of narcotic addicts have been reviewed elsewhere. We focus on those aspects of narcotic addiction which are relevant to the management of such patients through a medical crisis.

The Law

In December, 1972, methadone was placed in a unique drug classification by the FDA. Firm restrictions were instituted in order to control the growing illicit traffic in the drug.



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Food and Drug Administration regulations define three types of methadone use: detoxification, maintenance, and analgesia. Detoxification refers to the medically supervised withdrawal with methadone from a state of physical dependence on opiate drugs. It must be completed within 21 days. Methadone maintenance is the use of methadone as an oral substitute for heroin or other morphine-like drugs for more than 21 days. The third application of methadone, analgesia, is for the relief of intractable pain in patients with advanced disease.

FDA regulations state that a heroin addict with a history of addiction of less than 2 years must be detoxified within 21 days. A patient addicted for more than 2 years is eligible for methadone maintenance if he shows evidence of current physiologic dependence by having signs of withdrawal (lacrimation, rhinorrhea, pupillary dilation, and piloerection). Maintenance treatment is permitted to be undertaken only by an FDA-approved methadone program, except when the heroin addict is hospitalized for the treatment of a medical condition other than addiction. For that patient, the 21-day limit does not apply during the period of hospitalization, and methadone may be given by the hospital physician until the patient has recovered from the presenting illness.

Maintenance and Detoxification

The physician will encounter two types of opiate-dependent patients: 1) the addict who is enrolled in a bona fide methadone maintenance program and 2) the "street addict" who states or demonstrates that he is addicted to heroin, but who is not under treatment for his addiction.

Methadone Enrollees

For patients who state that they are enrolled in a methadone maintenance program, prompt communication with the program physician or the patient's counselor is necessary to confirm the fact of enrollment and to learn the maintenance dose of methadone. In addition, information can be obtained regarding special medical or psychological problems encountered during his treatment. Physicians should be aware that addicts have a tendency to exaggerate their needs, and before the clinician initiates treatment with methadone, the maintenance dose should be confirmed. An inexperienced physician occasionally will base his decision to administer methadone to the maintained patient on the history, without consulting the treatment program. This lack of communication may result in giving the patient an inadvertent methadone overdose. After confirming the dose, the physician should not change it; nor should he attempt to detoxify the patient. *It is important that no attempt be made by the hospital physician to alter the treatment for addiction in a patient enrolled in a maintenance program.*

Methadone-maintained patients enrolled in a drug abuse program are best managed by continuing methadone at the usual maintenance levels with once-a-day oral administration.¹ If oral administration is not possible, intramuscular or subcutaneous administration of methadone will suffice. We recommend a regimen in which methadone is given parenterally in 5- to 10-mg doses every 8 hours. It is exceedingly rare that this parenteral dosage level will have to be increased, regardless of the preadmission maintenance methadone dose. An alternate regimen consists of giving two thirds of the maintenance dose in two equally divided doses, 12 hours apart. For example, a patient maintained on 100 mg of methadone per day would receive 35 mg of methadone parenterally every 12 hours as long as he must remain *nil per os*. A maintained patient who is placed *nil per os* for a surgical or diagnostic procedure must be given some narcotic on the day of the procedure and as long as oral feedings are precluded. Full doses of oral methadone should be reinstituted when oral fluids are well tolerated.

Continued contact with the patient's maintenance program is an important part of the management of the hospitalized addict. Management of hostile behavior, of family problems, of visitors who are unruly or involved in the selling or taking of drugs, as well as discharge plans will be

facilitated by communicating frequently with the staff of the patient's treatment program.

Continuation of Methadone

Stabilization with methadone can be safely continued as long as the patient is ill. Studies of patients under maintenance treatment for heroin addiction, who have been stabilized with methadone in high doses for 3 or more years, have disclosed minimal side effects and no toxic effects.² Undesired effects include increased sweating, persistent constipation, urinary retention, and drowsiness if the dose is excessive. Abnormal liver function and serum protein values are reported in 75% to 90% of heroin addicts entering the hospital or treatment programs, probably as a result of repeated use of unsterile needles, injection of foreign substances, and excessive use of ethanol. These abnormalities persist without significant change during methadone maintenance treatment.³

Upon discharge it is important that the patient return to his program at once for continuation of maintenance treatment. It is undesirable and illegal for the hospital physician to undertake maintenance responsibility for an outpatient.

Street Addicts

"Street addicts," patients who state or demonstrate that they are addicted to narcotics but who are not enrolled in a drug abuse program, present a different problem. The first principle in managing such patients is to support and to continue their addiction to opiates until the acute phase of their illness is over. This can be achieved by placing them on methadone. Treatment is compromised if patients have to suffer concurrently from opiate withdrawal and the distress associated with illness, trauma, or labor.

Attempts to withdraw patients from opiates during an acute medical or surgical crisis will complicate the management of such crises and are unlikely to be successful in achieving abstinence from opiates. Therefore, decisions about withdrawal from opiates should be deferred until the acute phase of the patient's illness is over.

Because the addict's history cannot be relied on, and because symptoms are sometimes feigned or exaggerated, the American Psychiatric Association's Task Force on Drug Dependence recommends that methadone be given to street addicts only after the appearance of physical signs of the abstinence syndrome.⁴ It should be noted that the use of narcotic drugs, even if periodic, cannot be equated with narcotic addiction. Care

must be exercised in initiating methadone treatment to avoid addicting a person to methadone who was not already dependent on narcotic drugs. The clinician must make repeated evaluations for withdrawal signs and symptoms during the first 24 to 36 hours of hospitalization and must be prepared to respond to both subjective and objective symptoms. In selected patients, the clinician may conclude that the presence of fresh needle "tracks" and a positive admission urine test for morphine or quinine are sufficient evidence to begin treatment with a modest dose (10 mg per day) of methadone or a short-acting narcotic to forestall withdrawal. Exceptional circumstances may occur in which intense subjective complaints in a known addict can be treated with a small dose of methadone (5 mg per day).

Heroin (diacetylmorphine) is seldom detected as such in the urine of heroin addicts because it is deacetylated rapidly. Heroin appears in the urine as morphine which may be present for 12 to 24 hours after the last use of heroin. Because quinine is used to cut street heroin, it is frequently found in the urine of heroin addicts and can be detected for 5 to 10 days after the use of a "bag" of heroin.

Initial Dosage

Based on the physical examination, opiate withdrawal signs and symptoms can be classified according to severity. As noted in Table 1, the initial dose of methadone should be as follows: grade 1, 5 mg; grade 2, 10 mg; grade 3, 15 mg; and grade 4, 20 mg. Supplementary doses of 5 to 10 mg of methadone may be provided if withdrawal signs are not suppressed or as signs reappear.

Table 1
Relation Between Signs and Symptoms of Opiate Withdrawal and Initial Methadone Dose

Signs and Symptoms	Initial Methadone Dose
Grade 1: lacrimation, rhinorrhea, diaphoresis, yawning, restlessness, and insomnia	5 mg
Grade 2: dilated pupils, piloerection, muscle twitching, myalgia, arthralgia, and abdominal pain	10 mg
Grade 3: tachycardia, hypertension, tachypnea, fever anorexia, nausea, and extreme restlessness	15 mg
Grade 4: diarrhea, vomiting, dehydration, hyperglycemia hypotension, and curled-up position.	20 mg

A short-acting narcotic, such as morphine or hydromorphone (Dilaudid®), used in a small dose may be preferable to the long-acting methadone for initial treatment if the diagnosis of physiologic dependency is in doubt. Also, these short-acting narcotics may be needed as additional treatment agents even if there is no question of addiction. Since oral administration of methadone usually takes from 2 to 4 hours to have any significant effects, and from 30 minutes to 1 hour after parenteral administration, the clinician must not expect withdrawal symptoms to disappear promptly after its administration. In this circumstance, judicious use of additional short-acting narcotics may be necessary to render the patient symptom-free, which is desirable to improve management of the presenting medical problem.

In general, the dose of methadone should not be revealed to the patient. The critical element in managing the hospitalized street addict is to interpret requests to identify dosage levels as questions about trust in the doctor's judgment and ability. In the event that the addict is adamant to know the dosage, the physician should ask why the patient lacks trust and he should be prepared to listen. Our experience indicates that management is easier and the methadone dosage is lower when the patient does not know the dose of methadone.

Once stabilization is achieved, a total of 10 to 30 mg per day of methadone in divided doses will usually constitute an adequate regimen. It is unusual for a patient to require more than 30 mg per day for stabilization in a hospital setting where the total daily dose is divided and given twice or thrice daily, provided that the physician has not told the addict what dose he is being given. The addition of a short-acting narcotic to suppress symptoms frequently is preferable to raising the dose of methadone during the initial days of hospitalization. Methadone has a slow onset and a protracted duration of action, which is thought to be due to its conversion to an active metabolite that is slowly metabolized or excreted. Thus, after repetitive doses, effects will be greater after 2 to 3 days in treatment than they are on the first day.

After Discharge

Discharge plans for the "street addict" differ from those for the methadone enrollee. All drug users should be referred to the hospital's social service department as soon as possible after admission to formulate an outpatient treatment

plan. Three options are available: the patient can choose to be enrolled in a drug abuse program, be detoxified, or simply be discharged.

Drug-dependent patients who want to enroll in a methadone maintenance program must meet the FDA prerequisites. Even when all requirements are satisfied, the reality is that treatment resources for eligible addicts are severely limited in most areas of the United States. The physician often will have to prepare his patient for a waiting period that may extend into months. The actuality of a long delay may tempt the physician to support the patient's habit. This illegal and dangerous impulse has to be resisted. A useful alternative that the physician can offer is detoxification in a hospital setting.

Patients who elect detoxification can usually tolerate a daily reduction of 20% of the total dose with little discomfort. The dose of methadone can be decreased on a daily basis or at 2-day intervals, but the intake should always keep withdrawal symptoms at a tolerable level.⁵

Finally, it must be recognized that some patients will choose to return to their former life style. Substantial clinical experience suggests that it is a dangerous practice (forbidden by law) to prescribe opiates furtively or for nonexistent medical indications. Attempts to treat addicts by individual physicians outside of approved treatment programs have been unsuccessful and in some instances disastrous.

Analgesis for Addicts

Methadone-maintained patients may require analgesia for other medical problems. These needs can usually be met with normal doses of hydromorphone (Dialudid®), meperidine (Demerol®), or morphine in addition to the maintenance dose of methadone. The addict's tolerance to narcotics shortens the time of analgesic effect. Therefore, most maintenance patients will require more frequent administration of the analgesic than a "naive" patient.

Hydromorphone, meperidine, and morphine are safe and effective analgesics. However, pentazocine (Talwin®) must never be administered to a methadone-treated or heroin-addicted patient because this analgesic is a narcotic antagonist and will precipitate a withdrawal reaction in an opiate-dependent patient.

Methadone Intoxication or Overdose

Excess intake of methadone or other narcotic produces inappropriate somnolence when the tol-

erance of the patient has been exceeded. Progressive signs of intoxication are miosis, drowsiness ("nod"), decreased rate and depth of respiration, bradycardia, hypotension, hypothermia, and coma. Pulmonary edema, myoglobinuria, and acute renal failure have been described in patients with acute methadone overdose.

Methadone overdose is treated with naloxone HCl (Narcan®). In adults, the dose is 0.4 mg (1 ml) given intravenously. Nalorphine HCl (Nalline®) or levallorphan tartrate (Lorfan®) are other effective opiate antagonists, but they also cause respiratory depression and can be harmful if the reduced ventilation is actually due to poisoning with barbiturates or to another disease process. Since naloxone does not have this effect, it is safe to use when the cause of respiratory depression is in doubt.⁶

Intravenous administration of naloxone produces a peak effect in 1 to 2 minutes with a duration of 2 to 3 hours. If respiration improves after the first injection but is not yet adequate, the injection should be repeated in 5 minutes and again in 10 minutes. Naloxone can be given with safety and should be readministered whenever signs of overdose reappear.

Respiration must be observed every 15 minutes for the first 24 hours. This is extremely important because the antidotal action of the narcotic antagonist is only 2 or 3 hours, whereas the depressant action of methadone may last for 48 to 72 hours. Lavage, dialysis, and central nervous system stimulants are contraindicated.

Mixed-Drug Addiction

The physician frequently will encounter a drug-dependent patient (methadone enrollee or street addict) who uses opiates in combination with alcohol, barbiturates, or other drugs. Alcoholism seen among addicts is but one manifestation of the general tendency to multiple-drug dependencies.⁷ In addition, the poor quality of street heroin has caused many addicts to take alcohol for its sedative effect to alleviate withdrawal distress.

Some clinicians believe that because of cross-tolerance, withdrawal from alcohol and barbiturate dependence can be treated with a single drug. However, we recommend treating each withdrawal component separately. For opiate withdrawal, use methadone; for barbiturate withdrawal, use phenobarbital; and for alcohol withdrawal, use chlordiazepoxide (Librium®).⁹

Community Resources

Under federal statute, every state has a single agency for coordinating drug abuse programs. In the State of Illinois, this agency is the Illinois Dangerous Drugs Commission. Information regarding the appropriate clinical referral for your patient can be obtained by phoning the Dangerous Drugs Commission or by consulting the lists below.

The two types of treatment facilities are methadone maintenance clinics and therapeutic communities. Methadone maintenance clinics use methadone as an oral substitute for heroin or other morphine-like drugs or they may use methadone to withdraw the patient from all opiates. Therapeutic communities provide counseling, vocational and rehabilitation programs, and pharmacological substitutes for opiates are not used in treatment.

The following list is a current compilation of the Chicago area and State of Illinois treatment facilities which may be contacted for further assistance.

Out-Patient Drug Abuse Facilities in Chicago

- | | | | |
|---|----------------------------------|--------------------|--|
| 1. <i>Alternatives</i>
2546 W. Peterson
5866 N. Broadway
1768 W. Greenleaf | 973-5400
275-1076
973-6966 | | |
| 2. <i>Basta</i>
728 W. 17th Place | 733-5162 | | |
| 3. <i>Bethany Drug Awareness Program</i>
341 So. St. Louis
5220 West Flournoy St. | 265-7781
265-7785 | | |
| 4. <i>Brass Foundation I</i> : 418 E. 47th St.
<i>Brass Foundation II</i> : 1107 E. 43rd
<i>Brass Foundation III</i> : 7912 So. Halsted | 538-6880
538-6320
994-2708 | | |
| 5. <i>Central Intake IDAP</i>
1440 So. Indiana Ave. | 793-5605 | | |
| 6. <i>Day One</i>
1124 E. 132nd St. | 568-7867 | | |
| 7. <i>Edgewater-Uptown Mental Health Clinic</i>
4536 N. Broadway | 728-1604 | | |
| 8. <i>El Rincon</i>
1864 N. Milwaukee | 276-0200 | | |
| 9. <i>Gateway House Foundation</i>
2570 N. Lincoln
1706 N. Kedzie
4800 So. Ellis | 929-1865
227-6040
548-5656 | | |
| 10. <i>Harambee</i>
936 W. 54th Place | 924-6286 | | |
| 11. <i>Impact</i>
1414 W. 63rd Street | 778-7400 | | |
| 12. <i>Marvin J. Pitluck and Associates</i>
621 N. Lincoln | 539-2060 | | |
| 13. <i>Methadone Maintenance Institute</i>
27 So. Wabash | 372-4030 | | |
| 14. <i>Near North Family Guidance</i>
12 East Huron St. | 943-6545 | | |
| 15. <i>Northside Clinic</i>
2723 North Clark Street | | 525-3250 | |
| 16. <i>Northwest Youth Outreach</i>
7032 W. Belmont | | 777-7112 | |
| 17. <i>Northwestern Univ. Drug Abuse Program</i>
320 East Huron St. | | 649-8713 | |
| 18. <i>Pflash Tyre</i>
2043 North Sheffield St. | | 549-8388 | |
| 19. <i>The Place</i>
6022 So. Kimbark | | 955-0477 | |
| 20. <i>Presentation Drug Awareness</i>
758 So. Springfield | | 265-7936 | |
| 21. <i>Rotary Connection</i>
3801 W. 16th Street | | 521-2056 | |
| 22. <i>Safari House</i>
140 W. 62nd St. | | 955-4875 | |
| 23. <i>University of Chicago Research Clinics</i>
1811 So. Prairie | | 225-1400 | |
| 24. <i>Uptown Community Clinic</i>
4768 N. Broadway | | 728-1606 | |
| 25. <i>Westside Organization</i>
1601 W. Taylor | | 341-8184 | |
| 26. <i>Westside V.A. Hospital (Veterans Only)</i>
820 So. Damen | | 666-6500 X462 | |
| 27. <i>Augustana Hospital</i>
411 W. Dickens | | 975-5056 | |
| 28. <i>Family Institute of Chicago</i>
10 East Huron | | 440-1414 | |
| 29. <i>Friendship Medical Center</i>
850 W. 103rd St. | | 239-9100 X77-75-40 | |
| 30. <i>Jewish Federation of Metro Chicago</i>
6969 N. Western Avenue | | 338-2292 | |
| 31. <i>Latino Youth Drug Intervention Project</i>
1802 So. Loomis | | 829-0178 | |

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32. <i>Links Inc.</i> 1537 W. Morse	338-9500	37. <i>Prevention Inc.</i> 1336 North Hoyne	252-7888/4873
33. <i>Mile Square Mental Health Clinic</i> 2045 W. Washington	942-7900	38. <i>Project Reconciliation</i> 811 W. 63rd Street	723-5000
34. <i>Path I</i> 3319 W. Fulton	826-9080	39. <i>Teen Challenge</i> 315 So. Ashland	421-0111
35. <i>Path II</i> 2126 W. Warren Blvd.	942-7955	40. <i>Unicorn (Comprehensive Youth Service Center)</i> 817 W. 71st Street	224-8484
36. <i>Prairie Avenue Research</i> 2126 Prairie Ave.	225-1400	41. <i>Thresholds Inc.</i> 2700 Lakeview	281-3800

Out-Patient Drug Abuse Facilities Outside Chicago

- The Veterans Service Center of Southern Illinois*
321 E. Broadway
Alton, Illinois 62002
(618) 465-0111
- Youth In Crisis (McNeil Hospital)*
3249 Oak Park Avenue
Berwyn, Illinois 60402
(312) 484-7400
- Protect Lighthouse*
206 East Chestnut Street
Bloomington, Illinois 61701
(309) 828-1371
- Aeon Alternatives*
913 So. Illinois Avenue
Carbondale, Illinois 62901
(618) 549-5514
- Narco*
103 So. Washington, Suite 202
Carbondale, Illinois 62901
(618) 457-5046
- Hill House*
611 East College Edgemount Blvd.
Carbondale, Illinois 62901
(618) 549-7391
- Synergy*
905 So. Illinois
Carbondale, Illinois 62901
(618) 549-3333
- Aquarius House—Danville*
7 South Elizabeth
Danville, Illinois 61832
(217) 442-8579
- Vermillion County Council On Alcoholism & Drug Dependence*
525 East Main Street
Danville, Illinois 61823
(217) 443-3243
- Dekalb County Drug Council (Mother Sunshine)*
210 Carroll Avenue
Dekalb, Illinois 60115
(815) 758-4438
- Decatur Mental Health Center Drug Coordination*
2300 North Edward Street
Decatur, Illinois 62526
(217) 877-8613
- Forest Hospital*
555 Wilson Lane
Des Plaines, Illinois 60016
(312) 827-8811 X929
- Incentives*
2424 Dempster Avenue
Des Plaines, Illinois 60016
(312) 827-0440
- Downy (Icarus II) V.A. Building IV*
Downy, Illinois 60064
(312) 689-1900 X593
- Community Concern For Alcoholism & Drug Abuse*
20 North Grove Avenue
Elgin, Illinois 60120
(312) 742-3545
- Alcohol & Drug Abuse Dependence Council of St. Clair County*
2301 So. State Street
East St. Louis, Illinois 62205
(618) 875-6300
- Way-out Chemical Abuse Center Inc.*
1625 Simpson
Evanston, Illinois 60201
(312) 491-9125
- Little Company of Mary (Inner-Lite) Hospital Social Service Department*
2800 West 95th Street
Evergreen Park, Illinois 60642
(312) 422-6200 X121
- Foundation I*
86 West 154th Street
Harvey, Illinois 60426
(312) 339-8862
- Enterprise House (Hines V.A.)*
Hines Hospital
Hines, Illinois 60141
(312) 261-6700
- Kankakee Drug Abuse Rehabilitation Inc.*
Thresholds
290 East Jeffery
Kankakee, Illinois 60901
- Gateway—Lake Villa*
512 Cedar Crest Lane
Lake Villa, Illinois 60046
- Health Improvement Program (Hiphouse)*
1908 St. Charles Road
Maywood, Illinois 60153
(312) 356-1275
- Jefferson County Comprehensive Youth Service Center (JEFFCO)*
811 Casey Avenue
Mt. Vernon, Illinois 62864
(618) 242-1510
- Bermen Township on Youth*
15350 Oak Park Avenue
Oak Forest, Illinois 60452
(312) 687-9200
- Community Action Network*
1040 North Blvd.
Oak Park, Illinois 60301
(312) 383-6266

27. *Stonehedge*
1015 West McBean
Peoria, Illinois 61605
28. *Freedom House*
2116 25th Avenue
Rock Island, Illinois 61201
(309) 788-4571
29. *Keyway House*
401 North Second Street
Rockford, Illinois 61107
(815) 962-4311
30. *Northern Illinois Council On Alcohol &
Drug Dependence*
730 North Church Street
Rockford, Illinois 61101
(815) 962-5024
31. *Gateway—Springfield*
815 North 5th Street
Springfield, Illinois 62701
32. *Springfield Mental Health Center /Phoenix 7*
717 South Grand East
Springfield, Illinois 62703
(217) 525-1064
33. *Sangamon Menard Alcoholism & Drug Council*
614 South Grant East
Springfield, Illinois 62703
(217) 544-9858
34. *Crossroads Tinley Park*
74 West 183rd Street
P.O. Box 209
Tinley Park, Illinois 60477
(312) 532-4580 X81/82
35. *Champaign County Drug Rehabilitation Center*
505 West Green Street
Urbana, Illinois 62566
(217) 367-1859
36. *Outreach Center of Dupage County*
207 South Villa Avenue, Suite 201
Villa Park, Illinois 60181
(312) 834-8900
37. *Lake County Drug Abuse Program—
Health Department*
Substance Abuse Division
Health Clinic's "B" Building
Waukegan, Illinois 60085
(312) 689-6700
38. *Omi-House Youth Service Bureau of Wheeling*
Buffalo Grove
Prospect Heights Illinois Inc.
57 South Wolf Road
Wheeling, Illinois 60090
(312) 541-0190

Surgical Grand Rounds

(Continued from page 443)

three weeks after the associated myocardial infarction), once they have developed to the fibrous stage, rupture is exceedingly rare. In contrast, false aneurysms, either large or small, may rupture at any time.

Therefore, the very presence of a false aneurysm, of any size, may be an indication for excision to avoid catastrophic rupture. True aneurysms need not be excised unless they develop congestive heart failure due to large paradoxical areas, recurrent peripheral embolization from mural thrombi, or other less common complications.

Dr. Arthur DeBoer: There are two aspects of this case which warrant further comment. The first is the considerable evidence which was present preoperatively that this might be a false aneurysm and the second is the patient's associated mitral insufficiency.

The preoperative chest X-ray is typical of ventricular aneurysm. On the serial films, we could see that it developed extremely rapidly. Ten days after her first episode of pain, she had X-ray evidence of a pericardial effusion and seven days later the aneurysm was present. The rapid formation, along with what appeared to be a narrow mouth on the cine angiogram, form good presumptive evidence of a false aneurysm.

As was mentioned in the case presentation, she had evidence of moderate mitral insufficiency on physical examination, which was corroborated at cardiac catheterization. Following resection of the aneurysm, the mitral insufficiency was no longer present. Inspection of the mitral valve apparatus from both the ventricular and atrial sides at the time of surgery revealed no abnormality. The aneurysm extended on the lateral aspect of the ventricle just to the papillary muscles. Resection of the aneurysm and closure of the resulting defect effectively changed the anatomic relationship between the individual papillary muscles and between each papillary muscle and the valve leaflets. Presumably, these relationships were somehow improved by resection of the aneurysm, thereby abolishing the mitral insufficiency. ◀

Doctor's News

CALL FOR ABSTRACTS for the First Annual Illinois Health Care Research Symposium, sponsored by the Department of Health Care Planning, Southern Illinois University, School of Medicine, and the Office for Community Health Research, Rockford School of Medicine, University of Illinois. The purpose of this program is to provide a state-wide forum for health care researchers. It will be held November 11-12, 1976, at the Ramada Inn in Rockford.

The Program Committee requests submission of 200-300 word abstracts of papers on Illinois based empirical health care research. Topics of special interest include but are not limited to: epidemiology, health economics, health education, manpower, medical care organization, quality of care, and utilization of services. Deadline for submission is June 15, 1976. Notification of acceptance will be by September 1. Papers presented will be published in the symposium proceedings.

Send three copies of the abstract to: Program Committee First Annual Illinois Health Research Symposium, Office for Community Health Research, Rockford School of Medicine, 1601 Parkview Ave., Rockford 61101. For additional information call (815) 987-7291.

A COMMITTEE ON PHILOSOPHY AND MEDICINE has been established by the American Philosophical Association to assist physicians and other health care personnel in developing programs concerning medical ethics and other philosophical issues in medicine. In addition, the Committee will distribute a newsletter concerning programs in philosophy and medicine. Persons interested or wishing to be on the mailing list should write: Professor John Ladd, Committee on Philosophy and Medicine, Department of Philosophy, Brown University, Providence, Rhode Island, 02912.

IFMC HONORS PAST PRESIDENTS—Dr. Allan L. Goslin, IFMC president, recently honored two outstanding physicians, Joseph R. O'Donnell, M.D. and Philip G. Thomsen, M.D. Both are dedicated leaders who were involved in the beginning of the foundation.

Dr. Joseph O'Donnell was the first president of IFMC. He was instrumental in developing HASP and its concept of providing an entire state with a physician review program to peer review one another. Through Dr. O'Donnell's leadership, IFMC was launched on the path of keeping control in the hands of physicians. The inscription on the plant presented to Dr. O'Donnell read, "He Dared to be First."



Dr. O'Donnell accepts plant as token of appreciation from IFMC.

Dr. Philip Thomsen was honored for the job he did as the second president of IFMC, in keeping this new organization on track, in developing new programs and concepts, and in acting as a peace-maker by holding together all parties involved in the foundation movement. Dr. Thomsen was presented with a plant about ready to bloom, a symbol of the flowering of the foundation movement in Illinois, and the strength he has given to it. The inscription on the plant read, "His Wisdom Gave Strength."

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS—The Maternal and Child Health Program of the University of California School of Public Health at Berkeley will offer postgraduate programs in the areas of Maternal and Child Health, the Health of the School-Age Children and Youth, and Day Care and the Preschool Child, Care of Handicapped Children and Comprehensive Health Care, and Perinatology. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available.

Applications are now being accepted for the group beginning September, 1977. For information, write Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

HEARINGS FOR DMH REVISED 5-YEAR PLAN SCHEDULED—The Illinois Department of Mental Health and Developmental Disabilities will hold a series of public hearings on the revised draft of a five-year plan between July 21 and Sept. 17. This plan for the delivery of mental health services will detail the roles and responsibilities of the state-operated and the state-aided system and the manner in which the two will be linked. There will be a hearing in each of the Department's seven regions plus two statewide meetings—Sept. 11 in Springfield and Sept. 17 in Chicago. Copies of the second draft of this plan are available by writing: Office of the Director, Department of Mental Health and Developmental Disabilities, State Office Building, Room 401, 401 South Spring Street, Springfield, 62706.

BERKHEISER PRIZE FOR RESEARCH IN ORTHOPAEDIC SURGERY—The Institute of Medicine of Chicago is offering an annual prize of \$750 for the best thesis for original research work in the field of orthopaedic surgery completed in 1976. The greater part of the work must have been completed in a Metropolitan Chicago institution. The investigation may be in the fundamental sciences, provided the work has a definite bearing on orthopaedic conditions. The paper may not have been published prior to submission. For further information write: The Institute of Medicine of Chicago, 332 South Michigan Ave., Chicago 60604.

PHYSICIANS IN THE NEWS—New dean of the University of Illinois Rockford School of Medicine is **Clifford G. Grulee Jr., M.D.**, previously vice chancellor of Louisiana State University Medical Center.

Robert M. Kark, M.D., Chicago, has been chosen to serve on the Board of Regents of the American College of Physicians. **Howard S. Traisman, M.D.**, Evanston, was honored on April 3, by Northwestern University. He received an Alumni Service Award for exceptional voluntary service to Northwestern.

Ronald Lee Nichols, M.D., Associate Professor of Surgery, University of Health Sciences/The Chicago Medical School, was awarded second prize for his exhibit "Anaerobic Infection-Diagnosis and Therapy" and third place for an exhibit he co-authored, "The Relationship Between Surgical Infections and Surgical Environmental Air," at the Midwest Clinical Conference.

Mark H. Lepper, M.D., Chicago, has resigned as director of the Comprehensive State Health Planning Agency and plans to return to Rush-Presbyterian-St. Luke's Medical Center to work on special studies. Dr. Lepper was appointed coordinator of health services and director of planning in 1973. During his three years with the state he has been instrumental in developing the health planning process in Illinois.



President's Page

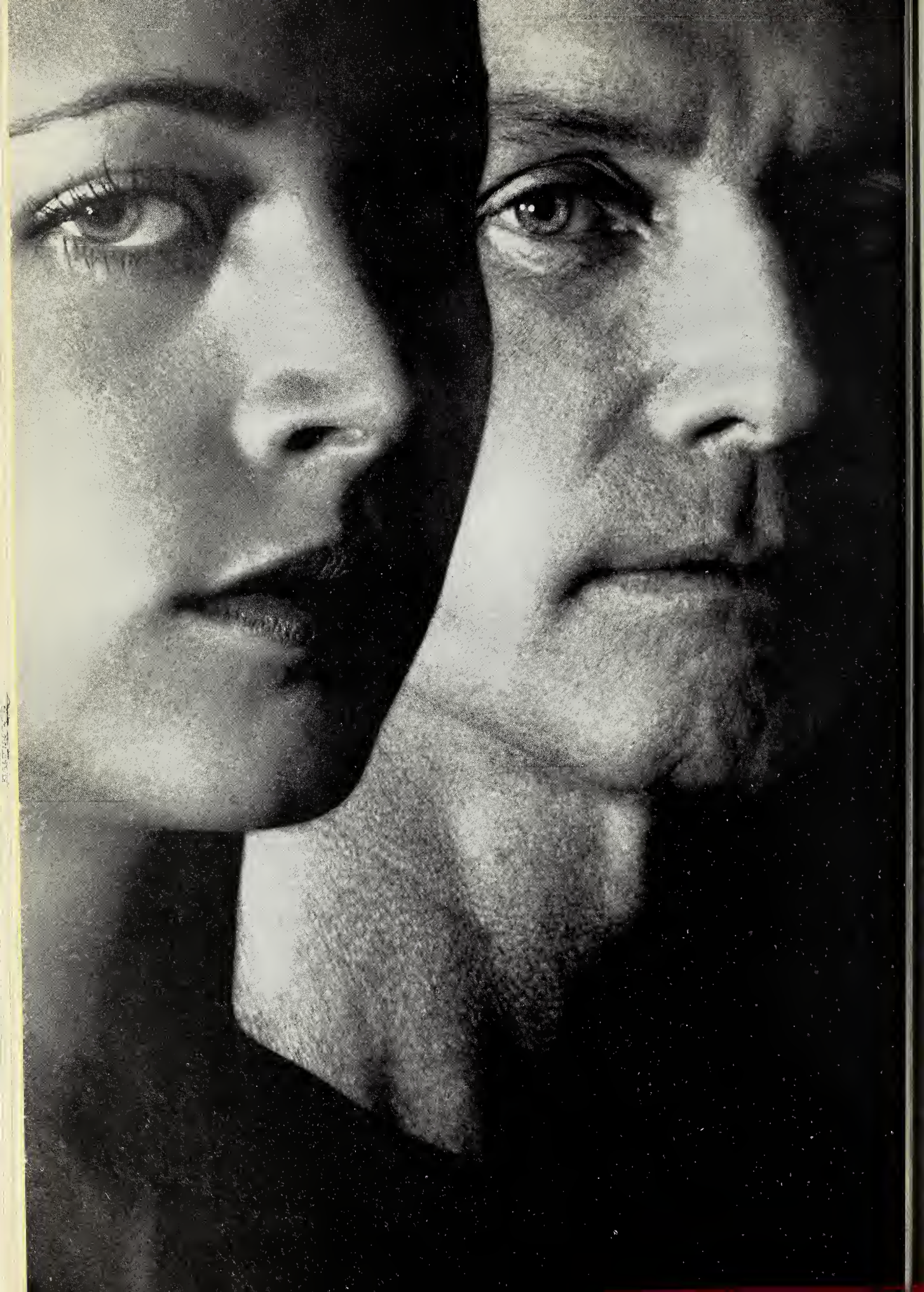
Doctors Have Responsibilities as Citizens

Two physicians signed the Declaration of Independence. Several doctors helped write our Constitution. Two hundred years later we find politicians, bureaucrats, legislative staff personnel, so-called consumer advocates, sociologists, social workers, labor union chiefs and so on, ad nauseam, telling the rest of the public how doctors should take care of sick people and how they should keep healthy people well.

Let's ignore the incongruity in this situation and look at it from a different perspective. We doctors and our families are also patients, (I can't bear to bring myself to use the word consumers) but few ask what kind of medical care we think best for our loved ones and for ourselves, nor are we asked seriously which insights we could bring to the issues of providing the best medical care for the most people at the least cost—in life, in suffering and in dollars. We as citizens owe it to the rest of the nation to speak out sensibly and forcefully and give the public the benefit of our specialized knowledge and experience.

Joseph H. Skom, M.D.

Joseph H. Skom, M.D.



Malignant Hyperthermia

BY HUNG-SHING TSANG, M.D. AND FREDERICK G. SCHOENFELD, M.D./AURORA

Malignant hyperthermia is a syndrome of a rapid progressive and often fatal rise in body temperature during anesthesia. While the exact cause is unknown, the most common factor is an abnormal response to succinylcholine. The early signs may include skeletal muscle rigidity, tachycardia, tachypnea and fever. Later events are hypoxia, cyanosis, mixed acidosis, potassium depletion, myoglobinuria and cardiovascular collapse. Therapy should be directed principally to reversing the fever and acidosis. Certain advanced precautions must be taken for all patients undergoing general anesthesia, especially continuous monitoring of the temperature.

Malignant Hyperthermia is a rapid elevation of body temperature thought to be a rare complication during or immediately after anesthesia.¹ However, it has been reported with increasing frequency during the past ten years. Clinically, this syndrome consists of high fever, abnormal response to skeletal muscle relaxant, tachypnea, tachycardia and other cardiac arrhythmias, hypoxemia, cyanosis, mixed acidosis, potassium depletion, myoglobinuria, consumption coagulopathy and finally cardiovascular collapse.² This has occurred most commonly during the first anesthetic procedures, but it may not be apparent until the second or third or even fourth exposure.² The following report concerns a patient who developed malignant hyperthermia during the second exposure to general anesthesia.

Case Report

A 29 year old white male was admitted to the hospital for a tympanoplasty. Past history revealed that two years before he had had a scalene node biopsy for possible sarcoidosis. A general anesthetic of sodium pentothal and Halothane had been administered. The patient recovered from the procedure uneventfully. He

was then put on steroid therapy for twelve months.

On this admission the physical examination was within normal limits and the chest X-ray was clear; laboratory tests were all within normal limits.

On the day of surgery, premedication consisting of Demerol 75mg, Vistaril 25mg, and atropine 0.6mg were administered an hour prior to arrival in the operating room. The blood pressure was 108/75 mmHg and the pulse rate was 76 per minute. Anesthesia was induced with sodium pentothal 500 mg intravenously, followed by oxygen, nitrous oxide and methoxyflurane by mask. Succinylcholine 60mg was given intravenously to facilitate endotracheal intubation. Anesthesia was maintained with the same inhalation agents, employing controlled ventilation in a semi-closed circle system.

Prior to surgical incision, 8 cc of 1% xylocaine with 1:100,000 Epinephrine were injected into the mastoid area by the surgeon, to obtain local vasoconstriction. For the entire four-hour procedure the vital signs remained stable, with blood pressure 110/70 mmHg to 110/80 mmHg, and pulse rate 110 to 120 per minute. Then it was noted that the patient developed bradycardia and hypotension, which did not respond to atropine. At this time the patient felt extremely hot and the rectal temperature, which had not been monitored, was found to be in excess of 107°F. Within five to ten minutes cardiovascular collapse developed and shortly after this the patient developed ventricular fibrillation. Despite vigorous efforts to cool the patient, to correct the severe metabolic acidosis, and to restore cardiac functions with cardiac massage, vasopressors and defibrillation, the patient could not be resuscitated and efforts were abandoned six hours after anesthesia was first begun.



HUNG-SHING TSANG, M.D., is Director of Anesthesiology and Respiratory Therapy at Mercy Center for Health Care Services in Aurora. He is a fellow of the American College of Anesthesiologists, American College of Chest Physicians, and a member of the American Society of Critical Care Medicine.

FREDERICK C. SCHOENFELD, M.D., is an otolaryngologist associated with Geneva Community Hospital, Geneva; Copley Hospital and St. Joseph Mercy Hospital, Aurora.

Discussion

Malignant hyperthermia is a pharmacogenetic disease³ of obscure etiology occurring in man and pigs. In susceptible individuals any potent inhalation agent (Halothane, methoxyflurane, diethyl ether, and cyclopropane), or any skeletal muscle relaxant (succinylcholine, decamethonium, tubocurarine, and gallamine) precipitates an acute crisis, the most outstanding characteristic of which is fever of malignant proportions. The etiology is uncertain. It has been attributed to a defect in the intracellular metabolism of skeletal and cardiac muscle and, to a lesser extent, the liver. This defect gives rise to massive heat production, uncoupling of oxidate phosphorylation,⁴⁻⁶ insufficient supply of production of adenosine triphosphate (ATP)^{6,7} and a depressed uptake of calcium by sarcoplasmic reticulum.⁶⁻⁹ There is an hereditary predisposition and many families have had two or more members afflicted. The mode of inheritance must be autosomal dominant.⁸

The overall frequency of malignant hyperthermia is about 1 in 15,000 anesthetic procedures in children² and 1 in 50,000 in adults.¹⁰ The highest incidence is in children, adolescents and young adults. The condition is rare but not absent in the elderly, having been reported in patients as old as 78 years. Infants, on the other hand, appear to be unaffected, no case having been reported under the age of 18 months.

The mortality for this syndrome is about 64%, despite early recognition.² Death is attributed to cardiovascular collapse, hypovolemia, respiratory and metabolic acidosis, and dehydration, all of which occur during the hyperthermic crisis. Disseminated intravascular coagulopathy (DIC) and myoglobinuria have been described in malignant hyperthermia.¹¹

Diagnosis and Management

The ideal management of malignant hyperthermia is to diagnose the condition prior to anesthesia. The history of a previous episode of malignant hyperthermia in the patient is invaluable information as it indicates that his future general anesthetics almost certainly will be associated with malignant hyperthermia.¹² However, one or even several apparently normal prior general anesthetics do not rule out the possibility of malignant hyperthermia developing on a subsequent occasion.¹³

Almost one third of affected patients have relatives who have had malignant hyperthermia dur-

ing general anesthesia.¹⁴ Only about one third of patients known to have had malignant hyperthermia manifest a muscle or musculoskeletal abnormality,^{2,15} such as strabismus, kyphoscoliosis, various hernias, and herniated nucleus pulposus.²

Biochemically, the enzyme which seems to be of most value as an aid in diagnosis of malignant hyperthermia is CPK¹⁶ (Creatine Phosphokinase). This may be because nearly all of the CPK is located within skeletal or cardiac muscle, while significant portions of other enzymes (Aldolase, S.G.O.T., LDH, and LDH isoenzymes) are situated in non-muscular tissues such as the liver, kidney and brain. However, a high CPK may be due, not to malignant hyperthermia, but to an acute muscle damage condition, as for example myocardial infarction, crushing muscle injury, massive burn, or gas gangrene of muscle, muscular dystrophy and paroxysmal myoglobinuria.

When a positive history is elicited, the administration of potent inhalation anesthetic agents and succinylcholine should be avoided. Regional anesthetic can often be employed, but if not feasible, a combination of nitrous oxide, oxygen, narcotic neuroleptanalgesia should probably be administered. Some afflicted patients have been safely re-anesthetized by this technique.⁸

The prophylactic use of a cooling blanket, ready availability of ice bags and ice water, and a method of delivering them is advisable even for those patients who can be managed by conduction regional or local anesthetic.

Local anesthetics, such as procaine, or tetracaine because of their property of accumulating calcium within the sarcoplasmic reticulum,⁸ appear to be safe for patients with the rigid variant of malignant hyperthermia, but not necessarily true for those with non-rigid malignant hyperthermia. It is probably unwise to use lidocaine in any patient suspected of having malignant hyperthermia, even those with rigid type, because lidocaine is the one local anesthetic which appears to accelerate calcium release from the sarcoplasmic reticulum.⁸

Early Recognition

Early recognition of malignant hyperthermia is based strictly on clinical observation.

Abnormal response to succinylcholine often represents the first clinical signs of impending disaster. When generalized muscular rigidity² or limited rigidity of the chest wall occurs after succinylcholine is administered, further doses are

contraindicated. Anesthesia and surgery should be terminated and the patient should be observed closely for further signs of this syndrome.

Unexplained tachycardia is the most common cardiovascular prodromal sign of the onset of this syndrome. The presence of a rapid pulse which is not clearly related to another cause should alert the anesthetist to consider malignant hyperthermia. Unexplained tachypnea is also an early sign of malignant hyperthermia, but it is not as common a sign as tachycardia. Temperature may rise at the rate of 1°C every five to seven minutes. Temperatures of 44°C (111.7°F) have been recorded within one to two hours after induction of anesthesia. Because of high metabolic rate, oxygen consumption increases up to 1500 to 2000 percent above basal level, and the rapid development of high fever^{4,25} necessitates not only the delivery of 100% oxygen to the patient, but supplemental glucose as well, to supply the brain and other organs with an energy source. Metabolic acidosis of a severe degree is present early, even before an increase in temperature. The hyperkalemia is part of muscle cell permeability. The rise in serum potassium can be precipitous and may lead to cardiac arrest.

Prolonged coagulation¹¹ can be observed as one of the initial symptoms or, less frequently, a later developing complication. The defect appears to be due to excessive consumption of clotting factors secondary to an accelerated rate of coagulation.

Successful Management

The key to success in the management of acute crisis is early discontinuance of all inhalation anesthetics and all muscle relaxants.

Immediate and intensive body cooling is essential to decrease total body metabolism. External methods of cooling, utilizing hypothermia blankets, ice packs, and alcohol sponges can be readily accomplished. Total body immersion, gastric and rectal irrigation, and even extracorporeal cooling may be necessary. Chlorpromazine, by promoting peripheral vasodilation, may facilitate heat dissipation once other cooling measures are underway.

Treatment of hypoxia and hypercarbia requires hyperventilation with 100 percent oxygen. Much higher than normal inspiratory pressure may be necessary because of persistent chest wall rigidity.

Massive quantities of intravenous fluid may be required to correct the dehydration and establish an early diuresis, as well as to prevent renal damage by myoglobin. The mixed acidosis results from increased production of both volatile and fixed acids by the hyperthermic crisis. Excessive carbon dioxide must be eliminated by increasing alveolar ventilation. Massive doses of sodium bicarbonate are also necessary to correct the extreme metabolic acidosis which invariably develops. The total amount of sodium bicarbonate to use can best be assessed by frequent monitoring of arterial blood gases.

Serum potassium levels become elevated, probably as a result of cellular damage and destruction. This should be treated by insulin and dextrose infusion and by ion exchange enemas. Frequent monitoring of serum potassium is necessary to prevent total body potassium depletion.

Procaine and procainamide are drugs that lower myoplasmic calcium by transporting calcium out of the myoplasm into the sarcoplasmic reticulum.⁸ To be effective, they must be given early and in large doses. 0.5 to 1 mg per kilogram of body weight per minute should be infused under continuous electrocardiographic control until improvement of tachycardia or other dysrhythmias occurs.

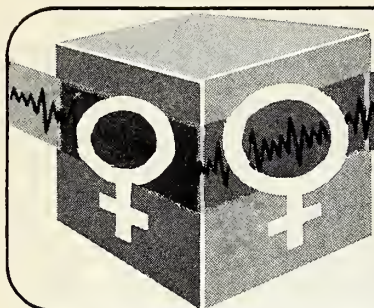
Either myoglobinuria or hemoglobinuria may occur with malignant hyperthermia. When they occur, additional fluid and supplemental diuretics are required to force diuresis.

Conclusion

Careful and continuous monitoring should be accomplished. Parameters to be monitored include temperature, electrocardiogram, pulse, and central venous pressure. An arterial line for blood gases determination should be established. Serum electrolyte (especially potassium, calcium, inorganic phosphorus, and magnesium), serum enzymes, blood glucose, lactate, pyruvate, creatinine and urine volumes and myoglobin must also be measured frequently. Clotting factors should be determined if clinical bleeding supervenes. ◀

References

A list of references for "Malignant Hyperthermia" may be obtained by writing *IMJ*, 55 E. Monroe, Suite 3510, Chicago 60603.



pulse... of the doctor's wife

MRS. HAROLD KEEGAN, Editor

Humanitarian Award

The second presentation of the Humanitarian Award was made at the 48th Annual Meeting of the Illinois State Medical Society Auxiliary held April 25-27, 1976, in Chicago. The honored recipient of this year's award was Mrs. Florence Miltenburg, Spring Valley, Illinois, a charter member of Bureau County Medical Auxiliary.

Spotlighted was a woman who literally grew up with her community the past eighty years—teaching in its schools, assisting her Spring Valley physician-surgeon husband, raising a family and still finding time to contribute her many talents and energies to all phases of community life.

A fullness in giving of herself to her family, her church, and to all phases of civic and cultural community endeavors has and continues to keep her a very happy and productive woman—a true example of “goodness and grace” in today's world.

No one can be more justly proud of Mrs. Miltenburg's many accomplishments than her own County Auxiliary members who sum up their admiration in the following words:

“A set of sparkling blue eyes, encouraging words, endless enthusiasm, untiring endeavors and a positive attitude with all projects to be undertaken in our Auxiliary, as well as with the Hospital and Community, are some of the admirable attributes of our brightest star shining in the Bureau County Galaxy.

She has been an inspiration to all of us during the past years, especially to our younger members, while she also continues to stimulate interest among the older mem-



Mrs. Florence Miltenburg

bers. Good health and maintaining her interest in people are her primary goals in life. Thus, she has stated, she can continue her volunteer work in the community and health fields.”

CONGRATULATIONS TO A LOVELY LADY!

MEN OF MEDICINE, 1776-1976

A Country Surgeon*

There have been many famous physicians from the state of Illinois. One of the earliest of these well known physicians was Dr. William A. Byrd, remembered by his colleagues as a brilliant and original surgeon.

William A. Byrd was born in Bath County, Virginia, in 1843. He served in the Missouri Brigade of the Army of Tennessee during the Civil War and afterwards came to St. Louis, Missouri. There he attended Missouri Medical College from which he graduated in February, 1867. After practicing in Missouri for several years, Dr. Byrd moved to Ursa in Adams County, Illinois, where he practiced till 1872. While in Ursa, he became acquainted with Dr. Joseph N. Raulston of Quincy and soon became engaged almost exclusively in surgical work. He served as surgeon-in-charge at both Blessing and St. Mary's Hospital in Quincy.

Dr. Byrd accomplished much great work in the field of surgery during his short professional life, 18 years. He became very active in the Surgical Section of the American Medical Association. In 1880, he gave a report about "Laparotomy and Colotomy, with Formation of Artificial Anus for Obstruction of Intestines." The following year he contributed one of the first papers on the surgical treatment of appendicitis. This article by Dr. Byrd preceded Dr. Reginald Fitz's first description of appendicitis by about 10 years. (See article below.) As well, Dr. Byrd was one of the founders and a Charter Member of the American Surgical Association. He was also a delegate to the International Medical Congress held in London in 1884; a President of the Illinois State Medical Society in 1885; an organizer of the Quincy College of Medicine, where he occupied the chair of surgery; and Extra-Mural Professor of Abdominal Surgery at Missouri Medical College.



Dr. William A. Byrd

Dr. Byrd contributed greatly to the literature of his profession, mainly in the field of abdominal surgery. During his meteoric career, Dr. Byrd became widely and well known. He died after a too brief career in 1886.

*Biographical information and article following provided by Carl Hagler, M.D., of the Adams County Medical Society.

*Abdominal Section in the Treatment of Ulceration and Perforation of the Caecum and the Appendix Vermiformis.**

BY WILLIAM A. BYRD, M.D.

The report that I have the honor to present to this Section today is offered as an appendix to the paper that I read before you in New York last summer.** I will first show you a caecum and vermiform appendix that I took from the body of Leon Vallet, who died in Quincy, March 24, 1881. The appendix has a gangrenous patch on each side about an inch and a half long by half an inch wide. Through the centre of each patch is a ragged hole that will permit the passage of the tip of the little finger. He was taken sick the night of March 18th with great pain in the umbilical region, and sent for an irregular practitioner, who treated him until the morning of the 23rd, when, because he was getting worse, he sent for Dr. M. F. Bassett, who found him cold, clammy, nearly pulseless, tympanitic, vomiting stercoraceous matter, and having extreme pain in the umbilical region. Dr. Bassett diagnosed some form of abdominal obstruction and told the patient he had little hope for him. It was a case that required the intervention of a surgeon, if anything would do him good.

That evening the doctor requested me to see the case for him. I found the case as described above, the tympanites being very great and the pain agonizing. As he had been given large doses of opium without much relief, I determined to use the aspirator. I passed the needle through the abdominal wall, but not into the intestines, as I supposed. There was withdrawn two pints of thin, brown fluid having a marked stercoraceous odor. This settled the diagnosis; proving it to be not only a case of obstruction but also one of perforation. The man being evidently in a state of collapse, and it being nearly eleven o'clock at night, I did not advocate nor believe that an operation would do any good. At three o'clock in the morning he died.

Several days later I was called in counsel with Drs. Wm. M. and D. M. Landon to see a patient near Adams, Illinois, who was also suffering with

obstruction of the bowels. By a strange coincidence, she had been seized on the very same night that my former patient was. This case is described by Dr. D. M. Landon in the following letter:

"Mrs. Jonah Broyles, married, aged 39, mother of five children, family history good. Several years ago she had Asiatic cholera. Her first husband died of an attack at this time. Menstruation regular. Says her right side has been lame and sore ever since the attack of cholera. She has been obstinately constipated through out her married life and, judging from her irregularity to attend to the calls of nature, one would suppose this condition had been brought about by a paresis of the muscular coats of the bowels due to over distension from long retention of fecal matter. On March 18, 1881, she was seized with colicky pains in the bowels, in the region of the caecum, which lasted nearly all day. On March 19, she felt soreness in her right side, but it was so slight that she went to Quincy, a distance of twelve miles, in a spring wagon. When she returned she was attacked with a violent colic, which lasted until she was relieved hypodermically by morphia on March 20. Her temperature had ranged from 98.5° F. to 101°; pulse 85 to 120. Before I was called she had taken a dose of antibilious physic, a quack nostrum of some kind, which was followed by copious evacuations from the bowels.

When I saw her she was suffering from the most violent tenesmus I ever witnessed. She said she felt as if she was going to be confined. Thinking there might be impaction of feces in the bowel, we gave copious injections of warm water, which were retained, no benefit being derived from them. Symptoms of obstruction became more aggravated, with stercoraceous vomiting, pain, tenderness, and induration over caecal region. There was a slight elevation in her temperature and the frequency of her pulse increased slightly. Also extreme thirst, which was due probably to the morphine and loss of appetite were present. In a few days symptoms of suppurations, chilliness, and profuse sweating presented themselves.

At this time, March 27, Dr. William A. Byrd, of Quincy, Illinois, was called in consultation. In the doctor's opinion, there was inflammation and obstruction of the bowel at the caecum which should be relieved by abdominal section. The patient feeling easier, the operation was not then permitted; but the doctor was recalled April 1, when he made an exploratory aspiration, getting an ounce or two of pus.

An abdominal section was commenced at 2 p.m. After working nearly an hour, tearing up old adhesions, which matted together several knuckles of bowel, the point of original disease was reached. The caecum and appendix were one mass of diseased tis-

*Extracted from the *Transactions of the American Medical Association*, 1881.

**"*Laparotomy and Colotomy, with Formation of Artificial Anus for Obstruction of Intestines.*"

sue, being inflamed and ulcerated throughout. The caecum was perforated in three places, to the left and posteriorly. At one of the points of perforation the appendix was adherent to the caecum and was perforated at the site of adherence and also at the opposite side. The perforations were evidently produced by the irritating action of some half dozen hard concretions found in the abscess cavity. These were nearly as hard as stone, and were about the size and shape of plum-seed. The perforations were all cut into one, making a single opening in the bowel instead of three, and the edges of this large opening were then stitched to the opening in the abdominal walls. The opening as presented to the outside was, when finished, about three inches in diameter. As there had been some of the contents of the bowel extravasated an opening was left at the inner side of the incision, between the bowel and the abdominal wound, large enough to admit the nozzle of a syringe to permit the washing out of the abdominal cavity, which was done every few hours during the treatment of the case, with a very weak solution of carbolic acid. Strict attention was paid to cleanliness. Morphine was given as the occasion required, hypodermically. Quinine and easily digested food were given and perfect quiet enjoined. The patient has been improving ever since the operation. Some suppuration yet, but no evidence whatever of inflammation. Rests well at night, appetite good, and, in my judgment, will be entirely well in a short time.

Very respectfully,

DAVID M. LANDON, M.D.

Adams, Illinois, April 29, 1881."

For a long time I had a great dread of invading the peritoneal cavity and thought that cases in which there was not only an opening into that cavity, but also perforation of the bowel and extravasation, must be fatal. However, I have now performed four abdominal sections opening also into the bowel and all of the patients are recovering from the trouble for which the operation was demanded. I have made twenty-two abdominal sections of all kinds. The first was a case of perityphlitic abscess that I was called to treat in February, 1869. When I first saw the case, I mistook it for one of hip-joint disease, but the abscess afterwards developed over the caecum and I cut down and evacuated the pus and a grape-seed.

The next case was that of John Lyons, who I was called to see October 9, 1878. I found a strangulated hernia of five days' duration with eight inches of intestine and a large piece of omentum gangrenous. The gangrenous bowel

had separated, permitting a large amount of fecal matter to become extravasated, into the abdominal cavity. The gangrenous mass was cut off and the abdominal cavity washed out well, then the ends of the divided bowel were stitched into the external opening in a manner which allowed the abdomen to be occasionally washed out with a weak solution of carbolic acid and common salt. As hopeless as the case appeared the man made a good recovery and has attended two crops of corn since the operation.

I think that washing out the peritoneal cavity had a good deal to do with the recovery of these cases because the products of inflammation that sometimes become so poisonous are gotten rid of this way. This doctrine is not new, nor is it original, Dr. Pease having taught it several years ago. It was still more eloquently and forcibly reiterated by Dr. Marion Sims in the *New York Medical Journal* a few years ago, and also by Dr. Wm. T. Briggs in the *Nashville Medical Journal*. These are cases such as occur in the practice of almost every physician, and a careful consideration of the condition necessitating an operation will lead to the preservation of many precious lives that are now lost. In cases of obstruction, abdominal section should be resorted to before peritonitis sets in if possible. Many cases of obstruction in the caecal region are caused by seeds or enteroliths becoming entangled in the appendix, causing ulceration and, in the majority of cases, perforation and death. In other cases of perforation there are adhesions formed, permitting the pus to ultimately work its way externally. But the source of danger resulting from these adhesions must not be overlooked. Another thing to which I wish to call your attention is the benefits derived from having an artificial anus formed. This is not a fictitious advantage, as it allows the gases that form in the bowels to escape without distending them and perhaps causing small cracks in the peritoneal coat inducing peritonitis or paralysis from over-distension. The artificial anus may be readily and easily closed. If the reporting of these cases causes any ignorant or rash man to undertake the operation then, to some extent, am I sorry that I have reported them. But it was not for such persons that they have been reported. Rather, may they to some degree throw light upon paths that others will have to travel. ◀

Progress in Obstetrics and Gynecology*

1921-1975

By J. P. GREENHILL, M.D./CHICAGO

The progress made in obstetrics and gynecology during the past 75 years has been fantastic. Whereas I cannot write from experience about the advances made during the first 20 years of this century, I have considerable personal knowledge about the progress made in the past 55 years.

Obstetrics

I was a resident house officer in Gynecology at Johns Hopkins Hospital during 1919-20. In 1921, when I became the first resident at Chicago Lying-in Hospital, the practice of obstetrics was rather primitive. We did not even have a test for pregnancy other than bimanual vaginal examination. Aschheim and Zondek did not describe their test until 1927. Other tests followed this one.

Relatively few pregnant women were given good prenatal care. Unfortunately, even today there are many women in the United States who have extremely poor prenatal care or none at all. Many years ago, our office routine was to take the patient's blood pressure, examine her urine and weigh her. We made vaginal examinations, listened to the fetal heart tones if the gestation was advanced and answered many questions. There was a strict rule that a woman must not gain more than 15 lbs. in her entire pregnancy—which, of course, we now know is pure nonsense. Women were starved and salt was taken away from them. The prescription of a salt-free diet was a god-like edict. The patients suffered unnecessary deprivations as a consequence, and I believe some babies were small because of the severe restriction on the mother's weight. At present, I do not care if my patients gain 30 lbs. or more in pregnancy. They may eat whatever they desire, including ample salt unless they have preeclampsia.

The only routine laboratory tests we carried out were those for urine, blood counts, gonorrhea and syphilis (Wassermann reaction). We had no special clinics for physical illnesses such as heart disease, nephritis, diabetes, cardiovascular disease, hypertension and toxemia. The term "high-risk patient" did not exist. We did not have the assistance of specialists except when we called them in consultation. Today all good

obstetric hospitals have special clinics devoted to these complications where patients are seen and treated for their medical complications during pregnancy and afterward.

Deliveries

Most deliveries were spontaneous, but we performed many low- and midforceps deliveries and even high-forceps operations. Today a high-forceps operation is almost a criminal act. Cesarean section is the preferred therapy when the proper conditions are present.

We delivered nearly all breeches from below and we became extremely skillful in this art. We rarely performed cesarean sections for breech deliveries. Today more and more cesarean sections are being done for breech presentations, especially frank breeches, and this is correct.

We did extremely few cesarean sections for placenta praevia, including total placenta praevia. In the early days we made the diagnosis by vaginal examination, a practice that can be dangerous. For treatment we used rubber bags of various types and sizes and we also packed the vagina with gauze. Because we delivered most of the babies from below, we lost most of them in cases of total placenta praevia. A few mothers died also. Now we are doing more and more cesarean sections for placenta praevia, especially for the total type.

It was difficult to get blood for transfusion in those days. We knew nothing about the Rh factor until 1940, when Landsteiner and Wiener reported the finding of this new factor in human blood.

Infections

We had no antibiotics whatever. Many women who had criminal abortions were sent to hospitals, including Chicago Lying-in Hospital. Many died. There were also many infections after

*Adapted from the 1975 Year Book of Obstetrics and Gynecology.

spontaneous and forceps deliveries and cesarean sections. An entire building at the Chicago Lying-in Hospital, "The Mothers' Aid Pavilion" ("MAP"), was devoted solely to patients with infection. Today infections are uncommon for several reasons, but especially because of the far better practice of obstetrics. Cultures are now made of the cervix and other organs and physicians immediately prescribe the appropriate antibiotics. Of course when an abscess was present it was incised and drained, but this complication is extremely rare today.

We did not know how to locate the placenta except by vaginal examination. We had none of the reliable tests we have now.

Many of the eclampsia patients we saw each year were sent to us by midwives. There were a few good midwives in those days and they recognized danger quickly enough to call for an ambulance and send the patient to us. We salvaged quite a few lives. Today we see few women with eclampsia, especially in the large cities, but we do see many cases of preeclampsia. The treatment for eclampsia and preeclampsia is far more sophisticated and lifesaving today than it was 50 years ago. A good part of this is due to the use of chemistry and the cooperation of specialists in renovascular diseases.

We did not do many cesarean sections until after Doctor DeLee improved the technic of the cervical operation. The cervical cesarean section became our routine one and we had to explain the use of classic cesarean section.

Diseases

We saw cases of hydatidiform mole and a few of choriocarcinoma, which in those days was called "chorionepithelioma." We did not know anything about these trophoblastic diseases. We knew, however, that we had to empty the uterus if we saw cysts issuing from the vagina and associated with uterine hemorrhage. We had no endocrine studies available, especially no gonadotrophic studies, to prove the presence of hydatid mole or choriocarcinoma. We did not know what to do beyond curettage or hysterectomy. Every woman who had a choriocarcinoma died, usually within a year. Today, as is well known, because of the work of Li and Herbst, the results of chemotherapy are truly phenomenal. If we can start therapy within 4 months of diagnosis in any woman who has choriocarcinoma, we can obtain almost a 100% cure rate. Furthermore, there is no need to remove the uterus. Many of the women who are cured subsequently have healthy babies.

Another disease in which fantastic progress has been made is erythroblastosis, a disease that

caused innumerable deaths and fetal malformations. Today this serious disease is being wiped out worldwide. This story is a fascinating one.

Many years ago we had a large number of cases of postpartum hemorrhage. Our treatment in those days was to pack the uterus tightly with gauze. We had no available pituitary extract until a few years later, even though it had been advocated by Hofbauer as early as 1918. We also gave hot intrauterine douches for the treatment of uterine hemorrhage. Every labor room had a sterilized can with rubber tubing and hot water. This therapy is being revived. Today, thanks to the use of oxytocics, especially pituitary extract and ergonovine, we can control most cases of postpartum hemorrhage quickly and efficiently.

Congenital Defects

We saw many babies with congenital deformities. It was several years before we learned that a special group of malformations was due to rubella acquired by the mother in the 1st trimester of pregnancy. The mothers were only slightly affected but many babies showed heart malformation, cataracts, deafness and sometimes microcephalus. Therapeutic abortion today is indicated when rubella occurs early in pregnancy, provided the diagnosis is made by serology. With the recent introduction of an effective means of immunization, it is essential to insure that every female receives this protection before adulthood and well before pregnancy.

We knew nothing about amniocentesis. This procedure now reveals a huge number of fetal defects long before the baby is born. Amniotomy is also most important for genetic purposes.

Fetal monitoring formerly was done only by means of a stethoscope applied every 5-30 minutes during labor. We used and still use the DeLee-Hillis head stethoscope. Many hospitals now use fetal monitoring, especially for high-risk cases of fetal distress. Hopefully, someday all patients in labor will be monitored during the entire labor.

During the past few years a new subspecialty, neonatology, has developed. This includes studies and special care of fetuses and newborns, both normal and abnormal, and has helped to reduce fetal morbidity and mortality considerably. Genetics is another recent and most important specialty. Years ago genetics was only a word and of little practical value.

The recent use of ultrasound or sonar in obstetrics has been a great boon. Ultrasound is most helpful in the diagnosis of very early gestation, ectopic pregnancy, location of the placenta, multiple gestation, hydatid mole, placenta pra-

via, hydrocephalus, hydramnios and assessment of fetal growth, especially the biparietal diameter and the size of the thorax, as well as for other purposes.

I wonder whether the young men and women practicing obstetrics today realize how easy and gratifying is the practice of this specialty as compared with our difficulties and lack of essential knowledge 50 years ago.

Gynecology

The important advances made in gynecology during the past 50 years, like those made in obstetrics, are great, but they are not as dramatic nor as lifesaving as the progress made in obstetrics.

In the entire history of medicine, one of the foremost contributions made is the Papanicolaou smear for the detection of cancer of the cervix and corpus uteri. The knowledge of this most important test spread rapidly all over the world after the publication in 1943 of Papanicolaou and Traut's book, *Diagnosis of Uterine Cancer by the Vaginal Smear*.

The discovery of a precancerous condition now known as "carcinoma in situ" (or by other names) preceded Papanicolaou's contribution. The Schiller test, which was described later, also became important for the detection of cancer, especially to indicate areas for taking cervical and vaginal biopsy specimens.

Colposcopy, first described by Hinselmann, rapidly became popular and useful worldwide, especially in Europe and South America. The use of colposcopy is recent in the United States. I finally believe colposcopy should be used more often than it is, and certainly always before conization.

The improvements in gynecologic surgery during the past half century have been enormous. An example is vaginal hysterectomy, which was simplified and encouraged by the late N. Sproat Heaney. Great advances in the diagnosis and treatment of pelvic disturbances have been made with the use of culdoscopy and laparoscopy. The latter is especially useful for the diagnosis of puzzling pelvic disorders, tubal sterilization and biopsy of the ovary.

Advances in Fertility

Studies and tests of infertility have resulted in the birth of thousands of healthy babies who might not otherwise have been born. Among the most important contributions are those made by Rubin concerning testing for tubal patency, hysterosalpingography, specific treatment of gonorrhea, artificial insemination, immunology and plastic operation on the tubes.

During the last few years there have been experiments to produce babies both in lower animals and in human females by starting fertilization in vitro. This technic is popularly called "genetic engineering" and is creating serious problems and debates. (See my discussion in the 1973 YEAR BOOK, p. 5, on this subject; also see "Treatment of Tubal Infertility by Artificial Fertilization" by Wood *et al* in this YEAR BOOK.) A group of scientists presently is attempting to call a halt to such experimentation and also to cloning, which has been successful in amphibians. If applied to human beings, cloning may "result in the development of individuals . . . identical to whatever donor individuals had been chosen: boys genetically exactly like the father, girls like their mother or individuals like some true or false hero of art, science, or sports or like some demagogue or some saint."

The field of endocrinology has become awesome. The abnormalities discovered and the treatment involved for some endocrine disturbances have been revolutionary. A great contribution, to mention only one, is the induction of ovulation in women who do not produce ova spontaneously.

A great advance in surgery is procedures for the correction of genital malformations, but a still more recent one is the surgical technic for changing the sex of a person, especially in cases of male trans-sexualism.

Cancer

The diagnosis and treatment of cancer of the female pelvic organs has been greatly advanced. The classification of the International Federation of Gynecology and Obstetrics has enabled comparison of statistics from all over the world. Not only has there been enormous progress in surgery for malignant diseases and much more extensive operations than were performed many years ago, but the introduction of radiotherapy, both intrauterine and external, has greatly improved the incidence of 5- and 10-year cures—but not enough as yet. In previous editions of the YEAR BOOK I have said that in the United States we should have at least 15-20 institutions like Sloan-Kettering-Memorial Hospital, M. D. Anderson Hospital and Roswell Park Hospital where cancer patients can be sent by their physicians just as we now have several centers for sending patients with choriocarcinoma for prompt and proper therapy. At present we are fortunate. In almost every large city, we now have well-trained oncologists who can treat patients with most cancers. No patient should be tampered with by an untrained cancer therapist because the first treatment may be the most important

one in saving the life of that patient. Chemotherapy is helping some cancer patients considerably.

The diagnosis and treatment of cancer of the breast have changed considerably during the past few years. Recently there has been a tendency for most surgeons to perform less radical surgery than the Halsted operation. Mammography, xerography and thermography are of great help in the diagnosis of breast cancer.

Summary

Perhaps a good way to summarize the important advances in obstetrics and gynecology in the past half-century is to present a list of the special articles that I requested authorities from different parts of the world to write for the YEAR BOOKS. The articles are listed by year, title and author as follows.

- 1936 YEAR BOOK, "Carcinoma," by Maud Slye.
- 1952 YEAR BOOK, "Genetic Damage Resulting from Radiation," by Irwin Herskowitz.
- 1957-1958 YEAR BOOK, "Genetic Consideration in the Practice of Ovarian Irradiation for the Treatment of Sterility," by Liane Brauch Russell.
- 1961 YEAR BOOK, "Chemotherapy of Choriocarcinoma and Related Trophoblastic Tumors in Women," by Roy Hertz.
- 1962-1963 YEAR BOOK, "Conference on Intrauterine Contraceptive Devices," by Warren O. Nelson; "The Stimulation and Suppression of Ovulation," by Robert B. Greenblatt; and "The Use of Oxytocics and Induction of Labor," by R. Caldeyro-Barcia and Y. Sica-Blanco.
- 1963-1964 YEAR BOOK, "Human Pituitary Gonadotropins in the Treatment of Sterility," by Carl Gemzell; "Cortisone in Obstetrics and Gynecology," by Abraham Hurtig; and "A Critical Evaluation of Lymphography in Gynecology," by Wolfgang H. Steinmetz.
- 1964-1965 YEAR BOOK, "Estrogen and the Aging Process," by M. Edward Davis; "Mammography in the Management of Diseases of the Breast," by J. Gershon-Cohen and Ernest J. Pick; and "Amniocentesis and Amniography in Hemolytic Disease," by A. W. Liley.

- 1965-1966 YEAR BOOK, "Cytology during Pregnancy," by George L. Wied; "Sex and the Teenager—and the Physician," by Mary S. Calderone; "Clinical Evaluation of Contraceptives—A Great Responsibility," by Joseph W. Goldzieher; and "Use of Progestational Agents in the Management of Metastatic Carcinoma of the Endometrium," by Robert W. Kistner.
- 1966-1967 YEAR BOOK, "Oral Contraceptives," by John Rock; "The Termination of Pregnancy by the Intra-amniotic Injection of Hypertonic Saline," by Arpad I. Csapo; and "Prevention of Isoimmunization of the Rh Factor in Obstetrics," by Vincent J. Freda.
- 1967-1968 YEAR BOOK, "Chromosome Anomalies in Obstetrics and Gynecology," by David H. Carr; "Sonar in Obstetrics and Gynecology," by Ian Donald; and "Pregnancy Estriol and Its Clinical Significance," by Antonio Scommegna.
- 1968 YEAR BOOK, "Intrauterine Growth Retardation," by William Oh; "Immunology of the Conceptus," by S. J. Behrman and Zeev Koren, and "Vaginal Cytology in the Menopause," by Winifred Liu.
- 1969 YEAR BOOK, "Social Factors in Obstetrics," by Sir Dugald Baird; and "An Angiographic Study of the Circulatory Homeostasis in Late Pregnancy," by Joseph Bieniarz.
- 1970 YEAR BOOK, "The Working of the Abortion Act in Great Britain," by Sir John Peel; "The Role of Prostaglandins in Obstetrics and Gynecology," by Bruce B. Pharriss; and "Asphyxial Brain Damage at Birth with Reference to the Minimally Affected Child," by William F. Windle.
- 1971 YEAR BOOK, "The Present Status of Rubella Immunization," by Saul Krugman; and "Cryosurgery in Gynecology," by Frank P. Poloucek.
- 1972 YEAR BOOK, "Intrauterine Detection of Genetic Disorders," by Henry L. Nadler; "Measuring the Functional Maturation of the Fetus with the Lecithin-Sphingomyelin Ratio," by Louis Gluck and Marie V. Kulovich; and "An Appraisal of the Role of the Gynecologist in the Treatment of Male Transsexualism," by Howard W. Jones, Jr., *et al.*
- 1973 YEAR BOOK, "Pathologic Galactorrhea," by C. J. Dewhurst.
- 1974 YEAR BOOK, "Current Status of Acupuncture in Surgery, Obstetrics and Gynecology," by William S. Kroger; "Medical Aspects of Family Planning," by Daniel R. Mishell, Jr., and "Intrauterine Progesterone for Contraception," by Antonio Scommegna.
- 1975 YEAR BOOK, "Treatment of Tubal Infertility by Artificial Fertilization," by C. Wood *et al.*

Call for Bicentennial Contributions

This is the second in a series of Bicentennial articles which will appear throughout 1976 as the Illinois State Medical Society's commemoration to this Bicentennial year. We hope that you have enjoyed reading the articles about "Early Medical Practice in Illinois, Before 1800," "Medicine in the Early 1900's," and all the rest.

Anyone interested is encouraged to submit articles about the history and lore of medicine and its practice in Illinois during the past two hundred years. Anecdotal material as well as feature articles are acceptable.

Several areas of interest have been identified, not to the exclusion of others:

1. Biography—earliest physicians; colorful characters; men of distinction and accomplishment; old diaries reviewed; great men.
2. Medical institutions—schools; hospitals.

3. Great discoveries and the improvement of quality of life by physicians through social action and clinical investigation.
4. Description of medical practice in early days.
5. Oddities of medications or practice.

Manuscripts submitted will be reviewed by the Publications Committee. Material should be short and concise (i.e. articles 7-8 pages, anecdotes 3-4 pages) and will be reviewed with an eye to quality, appropriateness to the Bicentennial, authenticity, length and breadth of interest.

We are also earnestly seeking pictorial material. We need pictures of early hospitals, operations, famous men of medicine, and anything else which is appropriate to illustrate the "History of Medicine" in Illinois.

Send contributions to Jacob E. Reisch, M.D., ILLINOIS MEDICAL JOURNAL, 55 E. Monroe—Suite 3510, Chicago 60603.

Transfer Factor

(Continued from page 452)

Further, methods normally employed to detect antigen may be inadequate since the antigen may be sequestered by polynucleotide or polypeptide complexes.

TF_a does not appear to be immunogenic. This has been based primarily on the failure of repeated injections of human TF_a into human recipients to cause any observable allergic reaction. However, human TF_a emulsified with complete Freund's adjuvant was found to cause the production of two antibodies in rabbits, detectable by immunoelectrophoresis.⁴ It is not known if the antibodies are directed against that moiety which transfers donor specific hypersensitivity.

Discussion

There is evidence that two fractions derived from leukocyte lysates have the capacity to transfer donor specific hypersensitivity and under some conditions, temporarily restore immunocompetence to immunologically compromised individuals. Although evidence of the specificity of the transfer with TF_{nd} and TF_a continues to accumulate, it is not yet definitive. This may, in part, be due to the melange of substances present in the two preparations. Both histologic spleen changes and altered *in vitro* responses to mitogens have been observed in mice receiving either human or mouse TF⁶. Changes in the number of T cells in the peripheral circulation and changes in mixed lymphocyte reactivity³⁵ have also been observed in human recipients of TF_a. These events may be entirely unrelated to that phenomenon which results in the transfer of donor hypersensitivity, but may be of consequence in therapeutic use. Polynucleotides and degraded RNA may exert an adjuvant like effect which results in temporary reconstitution of the immune responsiveness of the compromised recipient. It may also be the reason for the observed occasional conversion of skin test reactivity to an antigen to which neither the donor or recipient were overtly sensitive prior to the transfer.

Clinically, regardless of the specificity of the transfer, TF_a has been shown to have potential as an immunotherapeutic agent with few side effects. It may have value as a diagnostic tool helping to define immunologic diseases. Reports on the value of TF_a as an immunotherapeutic agent are on occasion contradictory, but this may

be due partly to the poorly defined unit of TF_a, the variety of donors used as a leukocyte source, the compositional differences between lots of TF_a and, finally, the enthusiasm of the clinician immunologist. More double blind studies are being developed to control the latter variable.

Although TF has been with us for almost two decades, there is still no clear idea of the composition of TF_{nd} and TF_a and their relationship to each other. Are they distinct, naturally occurring entities within the intact cell or are they the artifact of cell disruption, which still retain biologic activity? It is of course, premature to develop complex hypothesis about the mechanism of action of TF_{nd} and TF_a. Research on TF have increased rapidly within the last few years and it may soon be possible to address many of the problems raised by the existence of TF_{nd} and TF_a. ◀

EKG of the Month

(Continued from page 453)

Answers: 1. A,B,C 2. E.

The diagnosis of this arrhythmia can be difficult especially in this case because no clear P waves are seen. Paroxysmal atrial tachycardia and paroxysmal nodal or junctional tachycardia would be especially difficult to separate. Therefore, a far less specific diagnosis of supraventricular tachycardia would also be acceptable because the QRS duration is normal. At a rate of 230 beats/minute, atrial flutter with one to one conduction ought to be considered. The clinical significance of this arrhythmia depends on the presence or absence of organic heart disease. This arrhythmia may occur in an otherwise normal heart as was the case here. But it may also occur in rheumatic or coronary heart disease.

Digitalis intoxication should also be considered. In this case, as in many, carotid sinus massage may convert it to sinus rhythm. Other vagal maneuvers may also be worthwhile. Mild tranquilizers have been helpful. If the paroxysms continue, digitalis is the treatment of choice. ST segment depression during an arrhythmia is not diagnostic of ischemia. The mechanism of the arrhythmia is thought to be re-entry. Re-entry has been demonstrated in the sinus node, atria, AV node, and the His-Purkinje system. (For more detailed reading see *Circulation* 51:234, February, 1975).

BLUE SHIELD REPORT



FOR *Illinois Physicians*

Pre Admission Testing for Surgical Patients (PAT)

One of the several programs devised by Blue Cross to conserve health care dollar expenditures is the PAT program (Pre-Admission Testing Program for Surgical Patients). Ninety-seven hospitals in Illinois, with the approval and cooperation of their surgical staffs offer the program to their patients. PAT is implemented in the following manner:

After the surgical diagnosis has been established, surgery scheduled and the patient's room is reserved, those tests normally ordered by the physician prior to the operation which in his judgement can be performed on an out-patient basis without detriment to his patient, will be paid for by Blue Cross.

Results of the tests and examinations are reported to the surgeon and are made a part of the patient's record at the time of admission to the hospital. The charges become part of the inpatient bill of Blue Cross and are paid according to the benefits of the Blue Cross certificate held by the

member.

Benefits are not available under this program when the tests are performed to establish the diagnosis for which surgery is the appropriate treatment nor for research, case finding or surveys.

The tests must be done at the hospital and the surgeon determines the time period prior to admission in which the tests are to be performed. If surgery is postponed or cancelled, Blue Cross will still provide the benefits unless the patient decides he does not want to have the surgery performed.

If your hospital offers the PAT program, we urge you and your surgical colleagues to utilize it to the maximum extent possible. If your hospital has not yet established a PAT program, we suggest that you discuss the program with the hospital administrator and chief of surgical staff.

A brochure describing the program is available on request to the Medical Director, Blue Cross and Blue Shield, 233 North Michigan Ave., Chicago Illinois, 60601.

Claims for FEP Members Over Age 65

Because of a change in auditing procedures, the Federal Employee Program department of the Chicago-based Blue Cross and Blue Shield Plan is requesting the cooperation of physicians and their office staffs in filing claims for Federal Employee Program members over 65 years of age.

When Blue Shield Physician's Service Report forms are mailed to the Plan, it is important to indicate on the Service Report whether or not the member has Medicare coverage. Please write either "Medicare" or "No Medicare" in the blank space to the right of the line that reads: "Does the Patient Have Other Group Insurance"

If the Federal employee has Medicare, please submit either an Explanation of Medicare Benefits (EOMB), a Remittance Notice or Voucher form along with the Physician's Service Report to Illinois Blue Shield when filing the claim. This procedure is necessary because our Plan's Federal Employee Program Department *must coordinate its benefits with Medicare before payment can be made.*

If the FEP member does not have Medicare coverage, please submit the Blue Shield Physician's Service Report to our Plan in the usual manner.

Diagnosis Requested On All Claims For X-ray and Laboratory Services

A diagnosis is requested on all Blue Shield Physicians Service Report forms submitted to the Illinois Blue Shield Plan for payment of X-ray and Laboratory services.

When a supplier of X-ray and Laboratory services submits bills to Blue Shield for these services but has no knowledge of the diagnosis, the statement "Diagnosis Unknown," with the name and address of the referring physician must appear on the claim.

If a claim is filed for the above services and the diagnosis is omitted, it must be returned to the provider or supplier by Blue Shield for completion and resubmission.

Your cooperation is appreciated.

ASK BLUE SHIELD

. . . ABOUT MEDICARE

COVERAGE OF CONCURRENT CARE

Concurrent care is reimbursable by Medicare when the special skills of two or more physicians of different specialties are required to treat a patient for separate diagnoses. The medical need for such services must be clearly stated either in the diagnoses or by separate statement from the attending physician when submitting the claim.

Under Medicare's latest definition, the need for concurrent care exists when services more extensive than consultative services are furnished by more than one physician during a period of time. The reasonable and necessary services of each physician rendering concurrent care could be covered when each is required to play an active role in the patient's treatment because of the existence of more than one medical condition requiring diverse specialized medical service.

Examples of the need for concurrent care could apply when a patient is hospitalized for cataract surgery and a gastrointestinal hemorrhage occurs; or a patient may develop pneumonia during a post-operative period following a gastrectomy. Both situations could warrant the services of two different specialties treating separate and unrelated conditions.

Concurrent medical-surgical care may be reimbursable when the diagnosis is unrelated to the surgery and treatment warrants separate services. If, for example, a surgeon performs a cholecystectomy and another physician is treating the patient for diabetes, payment for the visits could be made under the secondary diagnosis.

However when the physician has a specialty which could reasonably be expected to treat each of the patient's conditions, Medicare would not reimburse for concurrent visits by another physician.

CLAIMS FOR DECEASED PATIENTS

If a Medicare beneficiary dies before payment is made on his claim, the payment may be made to the physician on an assignment of benefits. An assignment executed by the patient continues to be effective after his death. The physician may also submit an assigned claim showing "patient deceased" in place of the signature in Item 6 of the SSA-1490 form.

When the physician does not agree to accept assignment on the claim, payment of an unpaid bill cannot be made to him or to another person.

If the charges were paid by the patient, payment may be made to the representative of his estate or to his next of kin. If the charges were paid by someone other than the patient, the Medicare payment will be made to the person who paid the bill.

COVERAGE OF ALLERGY TREATMENTS

Payment is made for allergy treatments by Part B Medicare under the following circumstances:

(1) When the allergist prepares and charges the patient for an allergenic extract and he administers the extract.

(2) If the extract is administered by another physician, the cost of the extract is covered only if the administering physician obtains the extract from the allergist and the cost is included in the administering physician's itemized statement to the patient.

(3) When the allergist charges the patient for the extract but another physician administers it, payment is made to the allergist for administering the extract but not for the extract itself.

Billing for Allergy Treatments

Allergists commonly bill separately for the initial diagnostic work and for the course of treatment that follows. When it is necessary for the physician to treat the patient for an extended period, the allergist may bill with one statement for all treatments or on a periodic basis, i.e., monthly or quarterly.

When billing periodically, charges for services are considered *incurred* under the Medicare program *at the time they are actually performed*. Charges for anticipated services are not considered incurred under the program. When billing on a one-statement, flat fee basis, caution must be observed that services were not performed prior to the beginning of a patient's coverage or after his coverage ended.

The SSA 1490 Request for Medicare Payment form should be submitted (1) after the last treatment charged on the billing statement has been given; or (2) when billing for all treatments during a calendar year, at the end of that calendar year.



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Pharmaceutical advertising must be approved by the ISMS Publications Committee. Other advertising accepted after review by Publications Committee or Board of Trustees. All copy or plates must reach the Journal office by the fifteenth of the month preceding publication. Rates furnished upon request.

Original articles will be considered for publication with the understanding that they are contributed only to the *Illinois Medical Journal*. The ISMS denies responsibility for opinions and statements expressed by authors or in excerpts, other than editorial or allied views or statements which reflect the authoritative action of the ISMS or of reports on official actions, policies or positions. Views expressed by authors do not necessarily represent those of the Society; any connection with official policies is coincidental.

The *Illinois Medical Journal* is published by the Illinois State Medical Society as an educational and professional informational magazine and distributed as a benefit of membership in the Illinois State Medical Society. Its intent is to keep members current in medical knowledge and is a part of a continuing medical education program. Socioeconomic matters, affecting as they do a changing pattern in the proper delivery of medical care, are considered an inherent element in medical education.

Abstracts of Board Actions

April 24-28, 1976

Chicago

Task Force on Professional Liability

Legislative Initiatives

The Board of Trustees approved recommendations of the Task Force on Professional Liability to:

- A. Introduce legislation in the current General Assembly to eliminate the concept of awards for non-economic losses. This will replace an earlier proposal to establish limits on awards for non-economic losses, which the Task Force believes would be unconstitutional.
- B. Rework its proposal relating to contingent fee arrangements. Rather than limit contingency fees, the proposal would guarantee plaintiffs the following percentages of malpractice awards: 80% of the first \$50,000 recovered; 85% of the next \$50,000; and 90% of any award in excess of \$100,000. In addition, plaintiffs would be guaranteed that all prior medical bills and future medical expenses in excess of \$25,000 will be met.
- C. Change the phrase "or other healing art malpractice" to "or other healing art service" wherever it appears in legislative proposals. This was suggested by legal counsel because many malpractice suits are now being filed under provisions of the law, e.g., assault and battery.
- D. Introduce legislation which would make the loser in civil actions liable for all costs of the litigation. It is believed that such legislation could have substantial effects on the number of non-meritorious and questionable merit suits.
- E. Request Senator Glass to withhold action on a proposal to develop a system for handling medical malpractice cases similar to Workman's Compensation procedures until the Task Force completes a detailed study of the plan.

Revised Budget Approved

The Board of Trustees approved the following revised budget for the Task Force on Professional Liability:

\$400,200 budget for 1976
55,698 deficit from 1975
52,302 reserve for contingencies

\$508,200 Total Allocation

The allocation is based on income from the special assessment levied on all ISMS regular dues-paying members by the House of Delegates Nov. 12, 1975.

Telephone Information System

ISMS will establish a telephone information system—utilizing taped messages—to educate physicians on means to avoid malpractice and disseminate information on other vital issues. Under this system, members will be able to call a special number and request to hear a tape which fully explains a topic of particular interest.

Public Education and Support

The Task Force on Professional Liability has been authorized to produce an insert for distribution with the major Chicago newspapers to alert the public to the effect of the malpractice crisis on the cost and availability of medical

care. Implementation will depend upon the timing of legislative efforts. If the newspaper supplement is produced, additional copies will be made available for distribution in physicians' offices and for use by county medical societies.

Physician Liability in Patient Care

In a related action, the Board authorized the Medical Legal Council to distribute a booklet on "Physician Liability in Patient Care" to all members.

Laboratory Proficiency Testing

ISMS has requested the Illinois Department of Public Health to exempt the following laboratory procedures from proficiency testing under the recently enacted Public Act 79-422:

Throat cultures (strep only); urine cultures (no growth); urine dip-stick; hemoglobin and hematocrit (if not performed in conjunction with other test being monitored); cellulose tape test for pinworm; qualitative blood glucose; mononucleosis spot; and stool specimen for blood hemotest.

IDPH will send an official list of exempt procedures to physicians later in the spring.

Illinois Cooperative Health Data System

The Board approved ISMS participation in the Illinois Cooperative Health Data Systems, Inc., a proposed not-for-profit corporation which would: (1) design a statewide hospital discharge data system; (2) formulate a health data policy for adoption by IDPH; (3) create a health care data advisory group to establish a system of health care data; and (4) develop and administer a system for the dissemination of health care data.

Model State Legislation on Confidentiality

The Board referred to the Governmental Affairs Council the proposed model bill developed by the AMA and recommended the council consider introducing it in the Illinois General Assembly with whatever modifications are appropriate.

Possible Tax Liability

The Executive Committee was authorized to take appropriate steps, including initiation of legal action, if the Internal Revenue Service attempts to assess tax liability on dues income unrelated to advertising revenue derived by the Illinois Medical Journal.

Workshop on Discharge Planning

The Board of Trustees endorsed a Workshop on Discharge planning to be sponsored by the Continuity of Care Coordinator's Organization June 3-4 in Champaign. The conference will be co-sponsored by the Illinois Hospital Association and Blue Cross-Blue Shield.

Illinois Dermatological Society

The Illinois Dermatological Society will be represented on the ISMS Council on Affiliate Societies and the Task Force on Professional Liability.

(Continued on page 576)

and edema in acute inflammatory conditions and by reducing soft-tissue swelling and bone damage associated with chronic inflammation. It exhibits analgesic activity in rodents by inhibiting the writhing response in mice caused by the introduction of an irritant into the peritoneal cavity and by elevating pain thresholds to pressure in edematous hindpaws of rats. In rats made febrile by the subcutaneous administration of brewer's yeast, fenopfen produces antipyretic action. These effects are characteristic of nonsteroidal, anti-inflammatory, antipyretic, analgesic drugs.

Indications and Usage: Nalfon® (fenopfen calcium, Dista) is indicated for relief of the signs and symptoms of rheumatoid arthritis. It is indicated in the treatment of acute flares and in the long-term management of the disease. The safety and effectiveness of Nalfon have not been established in those rheumatoid arthritis patients who are designated by the American Rheumatism Association as Functional Class IV. (Incapacitated, largely or wholly bedridden, or confined to wheelchair; little or no self-care.) Improvement in patients treated with Nalfon for rheumatoid arthritis has been demonstrated by a reduction in joint swelling, a reduction in pain, a reduction in the duration of morning stiffness, a reduction in disease activity as assessed by both the investigator and the patient, and by increased mobility as demonstrated by a reduction in the number of joints with limited motion.

In clinical studies in patients with rheumatoid arthritis, Nalfon has been shown to be comparable to aspirin in controlling the aforementioned measures of disease activity but the frequency of the milder gastrointestinal adverse effects (nausea, dyspepsia) and tinnitus was less than in aspirin-treated patients. It is not known whether Nalfon causes less peptic ulceration than aspirin.

In some patients Nalfon has been used in combination with gold salts or corticosteroids. Studies have been inadequate to demonstrate whether Nalfon adds any improvement in patients maintained on gold salts or corticosteroids. Whether Nalfon could be used in conjunction with partially effective doses of corticosteroid for a "steroid-sparing" effect has not been adequately studied. The use of Nalfon in combination with salicylates is not recommended because there is no evidence to demonstrate that Nalfon would produce any additional effect beyond that produced by aspirin alone. Further, there is evidence that aspirin increases the rate of excretion of Nalfon.

There have been no studies in children; therefore the safety and effectiveness of Nalfon in children are unknown.

Contraindications: Nalfon is contraindicated in patients who have shown hypersensitivity to it.

Because the potential exists for cross sensitivity to aspirin and other nonsteroidal, anti-inflammatory drugs, Nalfon should not be given to patients in whom aspirin and other nonsteroidal, anti-inflammatory drugs induce the symptoms of asthma, rhinitis, or urticaria.

Warnings: Nalfon should be given under close supervision to patients with a history of upper gastro-intestinal tract disease and only after consulting the "ADVERSE REACTIONS" section. Gastro-intestinal bleeding, sometimes severe, has been reported in patients receiving Nalfon.

In patients with active peptic ulcer and active rheumatoid arthritis, attempts should be made to treat the arthritis with nonulcerogenic drugs, such as gold. If Nalfon must be given, the patient should be under close supervision for signs of ulcer perforation or severe gastrointestinal bleeding.

In subacute and chronic studies in rats, Nalfon caused interstitial nephritis, glomerulonephritis and renal papillary necrosis. These abnormalities were dose-related and began to appear at doses approximating the human dose. In chronic studies in monkeys interstitial nephritis also occurred following Nalfon administration. Although this was seen at doses considerably above the human dose, lower doses were not studied in this species. During the course of the clinical trials one patient developed renal failure and died with a diagnosis of septicemia, bilateral suppurative pyelonephritis

and renal papillary necrosis. It is not known whether these events were drug-related. A few patients developed mild elevations of the BUN during Nalfon® (fenopfen calcium, Dista) therapy. Since Nalfon is eliminated primarily by the kidney, the drug should not be administered to patients with significantly impaired renal function. It is desirable to perform periodic renal function tests in all patients receiving Nalfon.

Precautions: In chronic studies in rats, high doses of Nalfon caused elevation of serum transaminase and hepatocellular hypertrophy. In clinical trials, some patients developed elevation of serum transaminase, LDH, and alkaline phosphatase which persisted for some months, and usually, but not always, declined despite continuation of the drug. The significance of this is unknown. It is recommended that periodic liver function tests be performed in patients receiving Nalfon and that the drug be discontinued if abnormalities occur.

The safety of this drug in pregnancy and lactation has not been established and its use during these events is, therefore, not recommended. Reproduction studies have been performed in rats and rabbits. When fenopfen was given to rats during pregnancy and continued to the time of labor, parturition was prolonged. Similar results have been found with other nonsteroidal, anti-inflammatory drugs which inhibit prostaglandin synthetase.

In-vitro studies have shown that fenopfen, because of its affinity for albumin, may displace from their binding sites other drugs which are also albumin bound and may lead to drug interaction. Theoretically, fenopfen, as well as other nonsteroidal, anti-inflammatory agents, could likewise be displaced. Patients receiving hydantoin, sulfonamides, or sulfonyleureas should be observed for signs of toxicity to these drugs. In patients receiving coumarin-type anticoagulants, the addition of Nalfon to therapy could prolong the prothrombin time. Patients receiving both drugs should be under careful observation.

In patients receiving concomitant Nalfon-steroid therapy, any reduction of steroid dose should be gradual to avoid the possible complications of sudden steroid withdrawal.

Patients with initial low hemoglobin values who are receiving long term Nalfon therapy should have a hemoglobin determination at reasonable intervals.

Peripheral edema has been observed in some patients taking Nalfon; therefore, Nalfon should be used with caution in patients with compromised cardiac function.

Studies to date have not shown changes in the eye attributed to Nalfon administration. However, because of adverse eye findings in animal studies with some other nonsteroidal anti-inflammatory drugs, it is recommended that ophthalmologic studies be carried out within a reasonable period of time after starting chronic Nalfon therapy and at periodic intervals thereafter.

Since food decreases Nalfon blood levels, the drug should be given 30 minutes before or two hours after meals during the daytime.

When phenobarbital, which may enhance the metabolism of Nalfon, is added or withdrawn, Nalfon dosage adjustment may be required.

Caution should be exercised by patients whose activities require alertness if they experience central nervous system side effects from Nalfon.

Since the safety of Nalfon in patients with impaired hearing loss has not been established, these patients should have periodic tests of auditory function when chronic Nalfon therapy is given.

Nalfon decreases platelet aggregation and prolongs bleeding time. Patients who may be adversely affected by prolongation of the bleeding time should be carefully observed when Nalfon is administered.

Adverse Reactions: Digestive System

The most common type of adverse reaction concerned the gastro-intestinal system. Dyspepsia occurred most frequently, being observed in about one out of seven patients. Other adverse reactions in descending order of frequency were: constipation, nausea, vomiting, abdominal pain, anorexia, occult blood in the stool, diarrhea, flatulence, and dry mouth.

Three instances of peptic ulceration and/or gastro-intestinal hemorrhage that may have been due to the drug and four instances in which drug relationship was questionable were observed in 3,391 individuals to whom the drug was administered for periods of time ranging up to 165 weeks.

In less than 2% of patients the drug was discontinued because of adverse gastro-intestinal reactions.

Skin and Appendages

The most common adverse effect was pruritus which was seen in about one out of ten patients. Other adverse reactions were: rash, increased sweating, and urticaria.

In about 1% of patients Nalfon® (fenopfen calcium, Dista) was discontinued due to an adverse effect related to the skin.

Nervous System

The most frequent adverse reaction observed was somnolence which occurred in about one out of seven patients. Other adverse effects which occurred less frequently were: dizziness, tremor, confusion, and insomnia.

Nalfon was discontinued in less than 0.2% of patients because of these side effects.

Special Senses

The most common adverse reaction was tinnitus which was seen in about one out of ten patients. Other reactions observed in descending order of frequency were: blurred vision and decreased hearing.

In about 0.2% of patients Nalfon was discontinued due to adverse effects related to the special senses.

Cardiovascular

The most frequent adverse event observed was palpitations. This was noted in about one out of 25 patients. Tachycardia was observed less frequently.

In less than 0.5% of patients Nalfon was discontinued due to cardiovascular adverse reactions.

Laboratory

Anemia was noted in about one out of 500 patients. One patient required discontinuation of Nalfon therapy due to anemia. Increase in alkaline phosphatase, LDH, and SGOT were observed. ("See Precautions.")

Miscellaneous

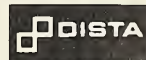
Headache was seen in about one out of seven patients. Less frequently observed in descending order of frequency were: nervousness, asthenia, dyspnea, peripheral edema, fatigue, malaise, dysuria.

Overdosage: No specific information is available on the treatment of overdosage with Nalfon. If it should occur, standard procedures to evacuate gastric contents and to support vital functions should be employed. Since Nalfon is acidic and is excreted in the urine, it may be beneficial to administer alkali and induce diuresis. Furosemide (Lasix®) did not lower blood levels.

Dosage and Administration: For the initial treatment of rheumatoid arthritis, the recommended oral dose is 600 mg. four times a day. Although improvement may be seen in a few days in many patients, an additional two to three weeks may be required to gauge the full benefits of therapy. The dosage should be adjusted in accordance with the patient's condition and changes in disease activity. Daily dosage larger than 3200 mg. is not recommended. Nalfon should be administered 30 minutes before or at least two hours after meals. If gastro-intestinal complaints occur, administer Nalfon with meals or milk.

There have been no studies in children; therefore, the safety and effectiveness of Nalfon in children are unknown.

How Supplied: Pulvules Nalfon, 300 mg. (equivalent to fenopfen), are supplied in bottles of 60 and 500 (No. 416). They are yellow and ochre in color. The Ident-Code® (formula identification code, Dista) symbol is H77.



600472

Additional information available to the profession on request.

DISTA PRODUCTS COMPANY
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

Editorials



Bureaucracy—a Menace to Free Enterprise

Many changes in the practice of medicine have occurred during the past decade. Those brought about by the government are based mainly on the myth that government can do it better and cheaper. This idea is rapidly leading us to one of the main pitfalls of our democracy—the biggest bureaucracy in society.

It has been said that when a new President is elected he brings a few hundred people into Washington. What chance does this “frosting” have against the millions of federal workers? It is evident from the problems our past few Presidents have had managing their bureaucracy. The bureaucrats not only administer things, but make most of the demands for new resources, new programs, new policies and new ideas. They have cleverly replaced most private-interest groups and even political parties.

What does government bureaucracy have to do with the practice of medicine? If we were to say “almost everything” it would not be too far from the truth. Every physician, hospital, administrator, pharmaceutical manufacturer, pharmacist and local or state health official sees evidence of this everyday. Yet the bureaucrats were never elected into office.

During the past decade many physicians have been attracted to our federal bureaucracy. As one physician said after being in Washington for a year: “Only a few are born to rule.” They

prefer to be political executives to private practitioners or in academic medicine. A national medical magazine recently carried a story on what happened to the intern and medical student activist that were in the news a decade ago. Did they go into practice or provide medical care for the poor and aged? Some did, but most of them formed the bureaucracy in Washington. They will get their way through a much more powerful source and before long will tell you and me how to practice.

The high malpractice insurance premiums also have driven many physicians into government medicine. Some of our most talented physicians and surgeons have closed their doors rather than pay huge sums of money for protection. Sometimes I suspect that the bureaucrats lack interest in our number one problems by design. Those in the federal driver’s seat could be using it as a whip to get a firmer grip on doctors with the guts to practice. Let us hope organized medicine finds a solution before it is too late. Meanwhile it is a sad commentary that the State of Illinois pays a premium to encourage more physicians to remain in our state but does nothing to discourage malpractice suits.

T. R. Van Dellen, M.D.

Editor

To help your patients understand what you already know!

You know that aspirin is a standard for analgesic effectiveness. You know how efficient it is as an antipyretic. And you know that it is basic starting therapy in inflammatory conditions such as rheumatoid arthritis.

But unfortunately, many of your patients don't.

And some may not be happy until they walk out of your office with a prescription for a more exotic, more expensive...and, sometimes, less effective drug.

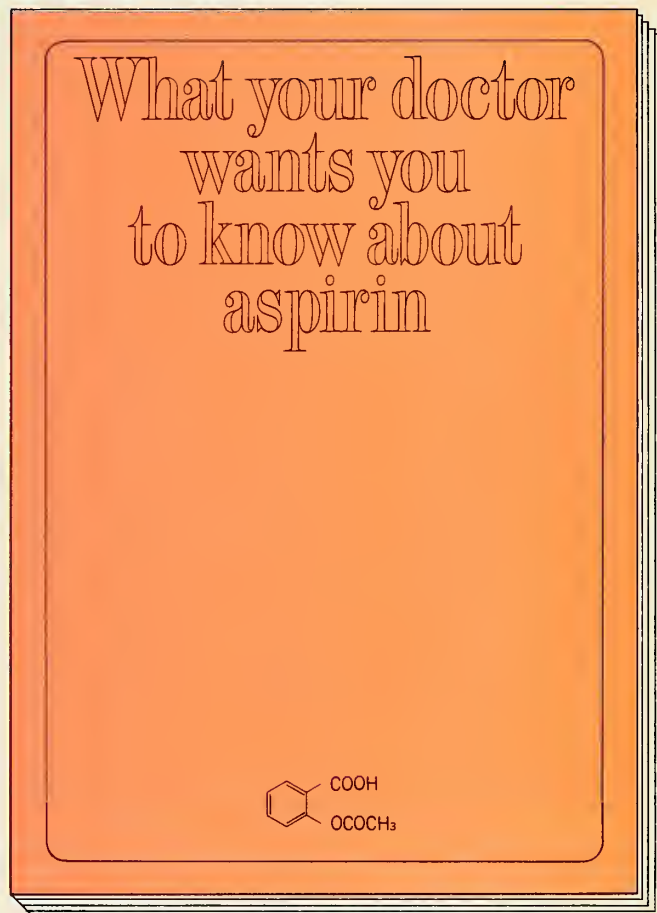
That's why a new booklet has been prepared for your patients entitled, "What your doctor wants you to know about aspirin." Its basic purpose is to help skeptical patients understand that aspirin is a real drug with many proven therapeutic applications...and that you are recommending aspirin for them not because you're taking their problem lightly, but because aspirin is the best drug for their condition. The booklet also emphasizes that even though aspirin is sold without a prescription, like all medications it is to be used with care. Suggestions for optimal administration are offered—to help increase efficacy and minimize adverse effect.

Moertel and his associates* have suggested that "...if aspirin is recommended with the strong endorsement of the physician, it is acceptable to even the most sophisticated patient."

We hope this booklet will help you offer such an endorsement to your patients and supplement your specific instructions when aspirin therapy is indicated.

To order a supply, just fill in and mail us the coupon.

*Moertel, C.G., et al: N. Engl. J. Med. 286:813 (Apr. 13) 1972.



Mail to: Aspirin
Box 615
Suffern, New York 10901

Please send me a supply of the new booklet "What your doctor wants you to know about aspirin."

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purity...quality...stability

Glenbrook Laboratories, Division of Sterling Drug Inc., 90 Park Avenue, New York, New York 10016

Continuing Medical Education

In 1972, ISMS invited the State's eight medical schools to join in a unique co-operative venture between profession and professional school—the Illinois Council on Continuing Medical Education. ICCME has worked quietly but effectively throughout the state since that time. To insure that all ISMS members know about ICCME services, we have arranged for members of that Council's Board to write a series of editorial reports. This is the fifth in that series.

Take your medical education courses in vacation-land if you will, but let's not kid ourselves—the best learning site is often close to home.

Most of us are attracted by the opportunity to attend continuing education programs away from the home base. It is relaxing and enjoyable to hear the "experts" in far away places. We look forward to a vacation atmosphere of fine restaurants, hotels and nightspots after a full day of meetings. We also look forward to the relaxation away from the continuous flow of patients, the jangling telephone and daily rounds. Admittedly, it is difficult for familiar routines to compete with the excitement of postgraduate educational courses offered in a desirable area, often with a pleasant climate thrown in for good measure.

But, the key question is this. What are we seeking? Vacation? Entertainment? Relaxation? Or is it the opportunity to improve our medical knowledge?

Let's be candid with ourselves in evaluating the time and cost of a trip as compared to our goal of improving our patient care (which is what continuing medical education is all about). Let's separate our personal and professional needs. We shouldn't practice medicine on vacation. We need to relate our medical education needs to the practice environment of our own local institutions. Our learning process inevitably goes into high gear when the material taught at a nearby hospital or staff meeting centers

around one of our own patients. Even the local hospital medical audit addresses itself uniquely to personalize one's learning needs. In fact, all indications are that we tend to learn more from dissection of our patients' problems than from patient records gleaned from St. Elsewhere. Such learning experiences, in one's local hospital, bring medical education to the point where it relates to "my" practice of medicine.

It is to this goal that ICCME directs much of its efforts. Your interest and attention are heightened when the discussion relates to a patient under your care. The visiting professor, the medical education seminar, the videotape lecture, or the staff meetings centering on your particular patient become a part of your professional life. Gauge your own needs by using the booklet, "Your Personal Learning Plan." Your self-education can be flavored by case discussions and literature review of relevant cases offered by ICCME.

Also, consider this: CME programs now offered at your local hospital can receive category I credit by virtue of accreditation by your Illinois State Medical Society.

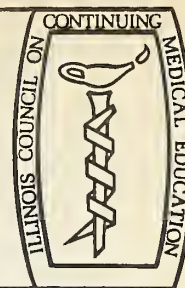
Learning brought into your own back yard is likely to stay with you and help you in your practice. Relevant and valuable continuing medical education can be obtained conveniently—close to home.

Take your vacation with your family!

Eli L. Borkon, M.D.

ISMS Guide to Continuing Medical Education

Compiled for Illinois physicians by the
ILLINOIS COUNCIL ON CONTINUING MEDICAL EDUCATION
55 E. Monroe St., Suite 3510 • Chicago, IL 60603 • (312) 236-6110



Items for this Calendar must be received 90 days prior to the event. Those received earlier may appear in up to three monthly issues.

WARNING! Items for this Calendar come from many sources, often far in advance of the publication date. Sometimes, cancellations or changes in date, place or time occur too late to be corrected before publication. You are urged to contact the sponsoring organization to confirm information given below.

July, 1976

ENT

61st ANNUAL HEAD AND NECK ANATOMICAL AND CLINICAL OTOLARYNGOLOGY COURSE

For: ENT Interest in Boards; Symposium, July 12-23, Indianapolis. **CME Credit:** 116 hrs. AMA Cat. 1. Fee: \$600. Reg. Limit: 27. Sponsor, contact: Indiana Univ. School of Medicine, Div. of Postgraduate and Continuing Medical Education, 1100 West Michigan St., Indianapolis, IN 46202. Attn: John Roscoe.

General Medicine

IHA PATIENT CARE AUDIT WORKSHOP

For: Physicians, medical records personnel & nurses. 1-day workshop, July 8, 8:45 AM-5 PM. Oak Brook. Speaker: Richard E. Thompson, M.D., Director, Patient Care Review Services. **CME Credit:** 8 hrs. AMA Cat. 2. Fee: \$90 (1st IHA member); \$75 (each additional IHA member); \$125 (non-IHA member). Reg. Limit: 35. Sponsor, contact: Richard E. Thompson, M.D., Director, Patient Care Review Services, Illinois Hospital Association, 1200 Jorie Blvd., Oak Brook, IL 60521. Telephone: (312) 325-9040.

Surgery

WORKSHOP IN SOFT TISSUE SURGERY

For: All MD's. Symposium, July 9-11. Indianapolis. **CME Credit:** 21 hrs. AMA Cat. 1. Sponsor, contact: Indiana University School of Medicine, Div. of Postgraduate and Continuing Medical Education, 1100 West Michigan St., Indianapolis, IN 46202. Attn: John Roscoe.

ADVANCE PERIPHERAL VASCULAR SURGERY

For: MD's. 5 day course, July 19-23. **CME Credit:** 40 hrs. AMA Cat. 1. Fee: \$225. Reg. Limit: 60. Sponsor, contact: Cook County Graduate School of Medicine, 707 S Wood St., Chicago, IL 60612.

August, 1976

Family Medicine

SPECIALTY REVIEW COURSE FOR FAMILY PRACTICE

For: FP's 10½ day course, August 16-27. **CME Credit:** 98 hrs. AMA Cat. 1. Fee: \$98. Reg. Limit: 150. Sponsor, contact: Cook County Graduate School of Medicine, 707 S. Wood St., Chicago 60612.

September, 1976

Family Therapy

WORKING WITH FAMILIES WITH AN ADULT HANDICAPPED MEMBER

For: Physicians, and Mental Health Professionals. One-day Workshop, Sept. 3, 9:00 AM-4:30 PM. Chicago. Speaker: Lyle Anderson, M.D., and Darlene Dietz, R.N. **CME Credit:** 7 hrs. AMA Cat. 1. Fee: \$30. Reg. Limit: 50. Sponsor, contact: Belinda M. Stone, Secretary for Workshops/Conferences, The Family Institute of Chicago/Center for Family Studies, Ten East Huron, Chicago 60611. Telephone: (312) 440-1414. Co-Sponsor: Northwestern Memorial Hospital and Northwestern University Medical School.

Medical Education

MEDICAL EDUCATION AND THE CONTEMPORARY WORLD

For: All MD's. 2-day symposium, Sept. 13-14, 9:00 AM-5:00 PM each day. Blackstone Hotel, Chicago. Fee: \$15, \$7 (med. students). Reg. Deadline: Sept. 1. Sponsor, contact: Jane Whitener, Staff Assistant, Univ. of Illinois College of Medicine, Office of Continuing Education Services, 1853 W. Polk St., Room 144, Chicago 60612. Telephone: (312) 996-8025.

Neurosurgery

THIRD ANNUAL POSTGRADUATE COURSE IN BASIC SCIENCE AND CLINICAL REVIEW OF NEUROSURGERY

For: Neurosurgeons, Neurologists, Diagnostic Radiologists. Postgraduate Course, Sept. 7-11, 8:00 AM-5:15 PM each day except Saturday 8:00 AM-12:30 PM. Northwestern University Medical School, Thorne Hall. **CME Credit:** 35 hrs. AMA Cat. 1. Fee: \$375 (pract. physicians); \$175 (Residents). Sponsor: Northwestern University Medical School, Division of Neurological Surgery. Contact: Jacob R. Suker, M.D., Associate Dean, Postgraduate Education, Northwestern Univ. Medical School, 303 E. Chicago Avenue, Chicago 60611. Telephone: (312) 649-7947.

Would an Outside View Help your Hospital CME?

The Illinois Hospital CME Consultation service can improve your in-hospital CME by helping you to build an up-to-date conception designed to enhance individual physicians' full clinical potential—and discard stereotyped group efforts to "keep up." The two-part process begins with self-analysis using a unique 16-page booklet—FREE to Illinois hospitals. The second part involves a personal visit and report by an expert on effective in-hospital CME; for the Consultant's visit, a modest charge is necessary to cover his honorarium, travel, and related costs.

For full information, ask for the "Consultation booklet"; write or call . . .

Illinois Council/CME
55 E. Monroe St., Suite 3510
Chicago, IL 60603
(312) 236-6110

Have You Seen the New Illinois Mandatory CME Law?

Last November, the Illinois Legislature passed a law requiring continuing medical education for re-licensure. The law will be administered by the State Department of Registration and Education. FREE copies of the law are available; write or call . . .

Illinois Council/CME
55 East Monroe St., Suite 3510
Chicago, IL 60603
(312) 236-6110

Your Personal Learning Plan

Are you satisfied that your CME is producing full benefits for the time (and money) invested? If you've any doubts, try *Your Personal Learning Plan*, a 32-page pamphlet intended to help the individual physician plan CME in a systematic fashion.

While written chiefly for primary-care practitioners—family physicians, internists, pediatricians—the pamphlet can also be useful to those specialists who ordinarily deal with a smaller range of medical problems. A unique feature of this handbook is a special set of worksheets—similar in format to the patient medical record—to help you think through and record YOUR personal learning plan.

Any Illinois physician (MD or DO) may have a copy FREE upon request; simply write "Personal Learning Plan" on your prescription form, and mail to ICCME (address above). To all others, the cost is \$1.00/copy postpaid (90c each in quantities of 100 or more).

CME Planning Aids

ICCME continually develops a variety of "how-to" material for CME Planners—DME's, program chairmen of hospitals and medical societies (both specialty and geographic), and others. All items are FREE to Illinois physicians and CME sponsors.

To learn what's currently available, request the "CME Planning Aids Order Form"; write or call . . .

Illinois Council/CME
55 E. Monroe St., Suite 3510
Chicago, IL 60603
(312) 236-6110

Workshop in CME Leadership

HOW WOULD YOU LIKE TO TAKE A CRACK AT THIS ONE?

As President of your hospital medical staff, you receive a report from the Medical Audit Committee showing an unexpected increase in cases of peritonitis on the pediatric and general medicine services during the first quarter of the year. There were 15 cases, four of whom died. All four had ruptured appendices. There was an epidemic of gastroenteritis in the community during that quarter. The Executive Committee decides to bring in an expert to lecture on peritonitis. Only a fourth of the pediatric and medical staff, plus three surgeons and two nurses, show up—and when you check attendance against patient records, of all the staff who handled the peritonitis cases, only *one* signed in for the lecture.

SOUND FAMILIAR? If so, your hospital suffers from three chronic problems common among in-hospital CME programs:

1. Not every patient receives the full quality of care that modern biomedical science, and contemporary physicians, can provide.
2. The *kind of CME most often offered fails* to reduce medical care deficiencies identified by audit.
3. The observation is constantly made that “those who need CME the most never attend.”

YOU CAN SOLVE THESE PROBLEMS . . . by mastering one essential concept: shared leadership. For *clinical* problems, doctors routinely share responsibility by referral to other specialists. By contrast, for CME this rarely works; you can't just dump the “CME problem” on another staff committee. What **does** work is: Medical staff officers take full responsibility for in-hospital CME, *sharing that task with colleagues*.

WORKSHOP IN CME LEADERSHIP . . . a short (3-hour) session, available anywhere in Illinois, can help you learn the basic techniques for building an effective CME program in your hospital. (It'll also help you enable your colleagues to satisfy the new mandatory CME law, conveniently and effectively.)

FOR DETAILS . . . write “Workshop in CME Leadership” on your prescription form and mail it to . . .

ILLINOIS COUNCIL ON CONTINUING MEDICAL EDUCATION
55 E. Monroe St., Suite 3510 Chicago, IL 60603
Telephone: (312) 236-6110

If your angina patient* isn't having 3 out of 4 better days than usual... try Cardilate® (ERYTHRITYL TETRANITRATE)

*Please note: unstable angina patients may be refractory to all long-acting nitrates.

INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset of action is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrates, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilatation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustment of the cerebral hemodynamics to the initial marked cerebral vasodilatation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

SUPPLIED: 10 mg chewable tablets, bottle of 100. Also 5, 10 and 15 mg scored tablets in bottles of 100. 10 mg scored tablets also supplied in bottle of 1,000.

Also available: Cardilate® P brand Erythrityl Tetranitrate with Phenobarbital* (*Warning: may be habit-forming).

1. Russek HI: AM J M Sc 239:478, 1960



"Pain days" significantly reduced with Cardilate® (erythrityl tetranitrate) in 48-patient study.¹ Patients on placebo experienced same pain as usual or increased pain 2 days out of 3...compared to 1 day out of 4 while on Cardilate.

Rapid-acting chewable tablets (10mg) preferred by many patients. Should be given before anticipated periods of stress to produce an action within 5 minutes and lasting up to 2 hours. Sublingual tablets also available.



Effective prophylaxis against attacks; increases exercise tolerance. Serious side effects have not been reported in 20 years' clinical use.

Cardilate can save patients money; is less expensive than many popular long-acting nitrates. 20% to 30% savings not uncommon...also helps reduce need for nitroglycerin.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Fragmentation—a Splintering of our Strengths

A physician still occupies a high level of esteem in the opinion of the majority of people. Yet it seems he has become the whipping boy of many dissident segments of society. The federal government blames the doctor for the high cost of medical care. The legal profession, utilizing peoples' ills and emotions, targets the doctor for easy prey in malpractice suits. The state government officials blame their Medicaid mess on physicians. Society implicates M.D.'s for sponsoring abortions and for not sponsoring abortions . . . and on and on.

Is this then the time for physicians to break up into separate groups, each seeking the same end but in different ways? Our various critics enjoy watching us fragment into small splinter groups as unions for this and associations for that, or brotherhoods for ethnic rights and racial groups. As small splinter groups, it is much easier to subject us to rigid and unwarranted supervision and restraints, while pitting our divisive factions one against the other.

All the separatism might be justified were it

not that within our present State Medical Society we have the provision for different ideas, a forum, a sounding board, to receive all our various groups and thoughts. Working together gives us the voice of greater numbers, and the financial ability to cope with federal, state and other agencies. As one organization we can do what is democratically best for the majority while still being aware that other opinions may exist to promulgate at another time.

In this age of malpractice problems, National Health Insurance adherents, National Service advocates and bureaucratic regulations, it behooves us all to work together for our common good and stop weakening ourselves by fragmentation because we might have minority opinions within our larger association. For those things you don't agree with, get in the swing of ISMS and try to win the majority to your side. We have never needed the strength of unity more than at this time. Let's not weaken our position by fragmentation.

Eli L. Borkon, M.D.

Membership Open for More Illinois Hospitals in Two-Way Continuing Medical Education Seminars

New membership applications are now being accepted in the fifteenth season of OMEN (the Ohio Medical Education Network)—the largest, accredited, two-way physician's network in North America. During the past season, medical staffs at seventy-three hospitals in seven states (including five in Illinois) and Canada took part in these unique continuing medical education seminars. The 1976-1977 season begins September 27, 1976 and continues through April 25, 1977. Each of the twenty-eight once-a-week programs lasts an hour. One hour of continuation study credit is available for each program from the American Medical Association, the American Association of Family Physicians, and the American Osteopathic Association.

Through the use of microphones and telephones, linked to amplifiers and loudspeakers at participating hospitals, OMEN overcomes geographical barriers to promote exchanges of ex-

periences and new ideas among practicing physicians in widely separated settings and medical educators at four medical schools. During the coming year, approximately sixty different faculty members will take part. They will be drawn from medical schools at The Ohio State University, Columbus; University of Cincinnati; Case Western Reserve University, Cleveland; and the Medical College of Ohio, Toledo. Visual impact in the programs is achieved through slides, outlines, and other materials, sent to participating hospitals in advance.

Medical staffs wishing more complete information on the network are invited to call (614) 422-4985 or write: Arthur A. Bartfay, Networks and Media Coordinator, Center for Continuing Medical Education, The Ohio State University, A-354 Starling Loving Hall, Columbus, Ohio 43210.

Pain: a call to action.



- ☐ rapid acting
- ☐ effective, reliable oral analgesia in moderate to moderately severe pain
- ☐ oxycodone, the principal ingredient of Percodan® is one of the more readily absorbed oral narcotic analgesics
- ☐ one tablet q.6 h.*

Tablets **Percodan®**

Each yellow, scored tablet contains 4.50 mg. oxycodone HCl (Warning: May be habit forming), 0.38 mg. oxycodone terephthalate (Warning: May be habit forming), 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.



*See dosage and administration section of Brief Summary

Whenever an APC/narcotic is indicated.

DESCRIPTION Each yellow, scored tablet contains 4.50 mg. oxycodone HCl (Warning: May be habit forming), 0.38 mg. oxycodone terephthalate (Warning: May be habit forming), 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.

INDICATIONS For the relief of moderate to moderately severe pain.

CONTRAINDICATIONS Hypersensitivity to oxycodone, aspirin, phenacetin or caffeine.

WARNINGS **Drug Dependence** Oxycodone can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence and tolerance may develop upon repeated administration of PERCODAN®, and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral narcotic-containing medications. Like other narcotic-containing medications, PERCODAN® is subject to the Federal Controlled Substances Act.

Usage in ambulatory patients Oxycodone may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using PERCODAN® should be cautioned accordingly.

Interaction with other central nervous system depressants Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics or other CNS depressants (including alcohol) concomitantly with PERCODAN® may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Usage in pregnancy Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, PERCODAN® should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

Usage in children PERCODAN® should not be administered to children. PERCODAN®-Demi, containing half the amount of oxycodone, can be considered. (See product prescribing information for PERCODAN®-Demi.)

Salicylates should be used with caution in the presence of peptic ulcer or coagulation abnormalities.

PRECAUTIONS Head injury and increased intracranial pressure

The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions The administration of PERCODAN® or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Special risk patients PERCODAN® should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, and prostatic hypertrophy or urethral stricture.

Phenacetin has been reported to damage the kidneys when taken in excessive amounts for a long time.

ADVERSE REACTIONS The most frequently observed adverse reactions include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down.

Other adverse reactions include euphoria, dysphoria, constipation and pruritus.

DOSAGE AND ADMINISTRATION Dosage should be adjusted according to the severity of the pain and the response of the patient. It may be occasionally necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. PERCODAN® is given orally. The usual adult dose is one tablet every 6 hours as needed for pain.

DRUG INTERACTIONS The CNS depressant effects of PERCODAN® may be additive with that of other CNS depressants. See WARNINGS.

Aspirin may enhance the effect of anticoagulants and inhibit the uricosuric effect of uricosuric agents.

MANAGEMENT OF OVERDOSAGE Signs and Symptoms Serious overdose with PERCODAN® is characterized by respiratory

depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, skeletal muscle flaccidity, cold and clammy skin, and sometimes bradycardia and hypotension. In severe overdose, apnea, circulatory collapse, cardiac arrest and death may occur. The ingestion of very large amounts of PERCODAN® may, in addition, result in acute salicylate intoxication.

Treatment Primary attention should be given to the re-establishment of adequate respiratory exchange through provision of a patent airway and the institution of assisted or controlled ventilation. The narcotic antagonists naloxone, nalorphine or levallorphan are specific antidotes against respiratory depression which may result from overdosage or unusual sensitivity to narcotics, including oxycodone. Therefore, an appropriate dose of one of these antagonists should be administered, preferably by the intravenous route, simultaneously with efforts at respiratory resuscitation. Since the duration of action of oxycodone may exceed that of the antagonist, the patient should be kept under continued surveillance and repeated doses of the antagonist should be administered as needed to maintain adequate respiration.

An antagonist should not be administered in the absence of clinically significant respiratory or cardiovascular depression.

Oxygen, intravenous fluids, vasopressors and other supportive measures should be employed as indicated.

Gastric emptying may be useful in removing unabsorbed drug. DEA Order Form Required.

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Clinics for Crippled Children Listed for July

Twenty seven clinics for Illinois' physically handicapped children have been scheduled for July by the University of Illinois, Division of Services for Crippled Children. The Division will conduct nineteen general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medical, social and nursing services. There will be seven special clinics for children with cardiac conditions, and one for children with cerebral palsy. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- July 1 Sterling, Community General Hospital
- July 1 Effingham, St. Anthony Memorial Hospital
- July 1 Lake County Cardiac, Victory Memorial Hospital
- July 7 Hinsdale, Hinsdale Sanitarium
- July 8 Macomb, McDonough District Hospital
- July 8 Springfield, St. John's Hospital
- July 8 DuQuoin, Marshall Browning Hospital
- July 9 Chicago Heights Cardiac, St. James Hospital
- July 9 Division Cardiac, Uni. of Illinois Hospital, Center for Handicapped Children
- July 12 Peoria Cardiac, St. Francis Children's Hospital
- July 13 Peoria, St. Francis Children's Hospital
- July 13 Quincy, Blessing Hospital
- July 13 E. St. Louis, Christian Welfare Hospital
- July 14 Joliet, St. Joseph's Hospital
- July 14 Champaign-Urbana, McKinley Hospital
- July 15 Elmhurst Cardiac, Memorial Hospital of DuPage County
- July 20 Rock Island, Moline Public Hospital
- July 20 Belleville, St. Elizabeth's Hospital
- July 20 Decatur, Decatur Memorial Hospital
- July 21 Centralia, St. Mary's Hospital
- July 21 Springfield Pediatric-Neurology, Diocesan Center
- July 23 Chicago Heights Cardiac, St. James Hospital
- July 26 Peoria Cardiac, St. Francis Children's Hospital
- July 27 Peoria, St. Francis Children's Hospital
- July 28 Rockford, St. Anthony Hospital
- July 28 Chicago Heights, St. James Hospital
- July 28 Elgin, Sherman Hospital

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization and after-care for children with crippling conditions or who are suffering from conditions that may lead to crippling. In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse associations, local social and welfare agencies, local chapters of the National Foundation and other interested groups. In all cases the work of the Division is intended to extend and supplement, not supplant activities of other agencies, either public or private, state or local, carried on behalf of crippled children.

New Developments at ICCME

The latest activity in ICCME's continuing effort to help Illinois physicians prepare for the new mandatory CME law is a "Workshop in CME Leadership" for hospitals and medical societies. Dr. Joseph Bordenave, immediate past chairman of the ISMS Board of Trustees, at whose hospital the workshop was tested, called it "the most common-sense approach to CME I've seen."

Another new development is ICCME's latest publication, "How to Start a CME Program in your Hospital or Medical Society." This pamphlet details a step-by-step procedure for using a time-tested formula to build a successful, effective, continuing education program—one that emphasizes individual-physician concerns and interests within the institutional context. The pamphlet focuses on *in-hospital* CME, the most convenient, inexpensive opportunity for physicians to earn CME credit.

Copies of How to Start a CME Program are *free* upon request to Illinois physicians and CME sponsors; to all others, a charge of \$2.00 is necessary to cover cost of printing, handling, and mailing. Other new ICCME publications are: The CME Planner's Guide to "Your Personal Learning Plan"; and Physician & Community Hospital—Partners in CME, a case study of how one hospital built its CME program.

The Illinois Council on Continuing Medical Education is a unique nonprofit foundation established in 1972 by the Illinois State Medical Society and the State's eight medical schools. Its overall purpose is to encourage, stimulate and assist in the development of high-quality continuing professional education for physicians. To order How to Start a CME Program, or for full information on currently-available ICCME publications, write or call: Illinois Council on Continuing Medical Education, 55 East Monroe Street, Suite 3510, Chicago, Illinois 60603. (312) 236-6110.

consider the effect on
coexisting diabetes when
you prescribe a vasodilator*



(POSTERIOR VIEW OF PANCREAS)

no interference in the management of the
diabetic patient has been reported with

VASODILAN[®]

(ISOXSUPRINE HCl)

TABLETS, 20 mg.

the compatible vasodilator

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MJL-54117

***Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500, 1000, 5000 and Unit Dose.

Doctor—Your Opinion Please

In view of recent actions to repeal antisubstitution laws, what is your opinion?

Please discuss:

- 1) Any cases of substitution based on personal knowledge, where there was no cost benefit to the patient. _____

- 2) Incidents when the patient had an adverse reaction to a substituted drug. _____

- 3) Is it your opinion that generic drugs in general are therapeutically equivalent to brand name products? **YES**_____ **NO**_____

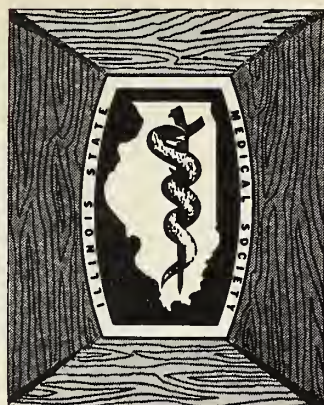
- 4) If there were to be a mechanism to allow substitution, with what would you be most comfortable?

Signature (optional) _____

County Medical Society _____

Please send replies to:

Illinois Medical Journal Survey
55 E. Monroe, Suite 3510
Chicago, Illinois 60603



I M J

Illinois Medical Journal

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Evolution of Regionalized Perinatal Care in Southern Illinois

BY WILLIAM R. HAMILTON, M.D., F.A.A.P./CARBONDALE

Care for the newborn infant in the Southern Region of Illinois prior to 1969 was limited primarily to "well babies." The other infants were referred to either Christian Welfare Hospital in East St. Louis, Illinois; Cardinal Glennon Children's Hospital, St. Louis, Missouri, (CG); or St. Louis Children's Hospital (SLCH), St. Louis, Missouri. The demand on the practicing pediatricians and existing hospital facilities dictated this referral pattern.

Since 1970, a cooperative effort by three of six pediatricians in Carbondale, Illinois, resulted in the gradual acquisition of equipment and education to aid in improving newborn care, physician and nursing skills, and moving into a new unit at Doctors Memorial Hospital (DMH) housing the Obstetric and Newborn Nursery Services.

The nursing staff was most supportive to the medical staff and was instrumental in improving the care of the "sick newborn."

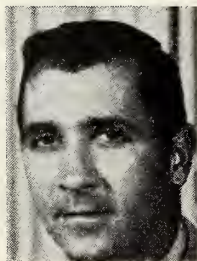
In 1972, at Gerald Staub's first Perinatal Symposium in Rockford, Illinois, further involvement with a program to upgrade newborn care was instituted through my subsequent appointment to the Advisory Committee of the Premature Care Program of the State Department of Public Health. The need for adequate facilities,

staff, and equipment, as well as transfer capabilities, was demonstrated in the Perinatal Planning Committee.

The next step was the submission of care level capabilities at Doctors Memorial Hospital in 1973, as per request by the State Department of Public Health. This followed the updating of Section XV of the State Hospital Licensing Act. The requested plan defined staff and facility capabilities along with a contingency referral plan.

The culmination of the Advisory Committee was achieved when the State of Illinois accepted the recommendations of the broad-based Perinatal Planning Committee. Public Act 78-557 was enacted and January 1, 1975, saw the designation of Regional Perinatal Centers throughout the State.

WILLIAM R. HAMILTON, M.D., is Clinical Associate Professor at Southern Illinois University School of Medicine and Chief of Pediatrics at Doctors Memorial Hospital in Carbondale. He is a member of the Illinois Perinatal Planning Committee and is especially interested in Neonatology.



Establishing the Perinatal Centers

The current funding limits available moneys to the perinatal centers. Intermediate and general care facilities are not currently funded. A grant was submitted and approved through the cooperation of the Emergency Medical Services Section at Doctors Memorial Hospital. The grant permitted the establishment of an intermediate care oriented unit which would function like a satellite for the perinatal center at the Barnes Hospital Complex in St. Louis.

A second grant was obtained through the Emergency Medical Services staff to provide high risk care training in various areas throughout the hospital, including five R.N.'s or L.P.N.'s for high risk nursery care and one M.D. for post-graduate neonatal education.

From May 1, 1974, to April 30, 1975, both pediatric and registered nurse skills were sharpened. A series of lectures on perinatal medicine was given to our staff and offered to the outlying hospitals. The transport isolette (OHIO), provided by the State Department of Public Health, was demonstrated to various area hospitals, as well as to our own institution.

FIGURE 1.
REFERRAL AREA FOR DOCTORS MEMORIAL HOSPITAL

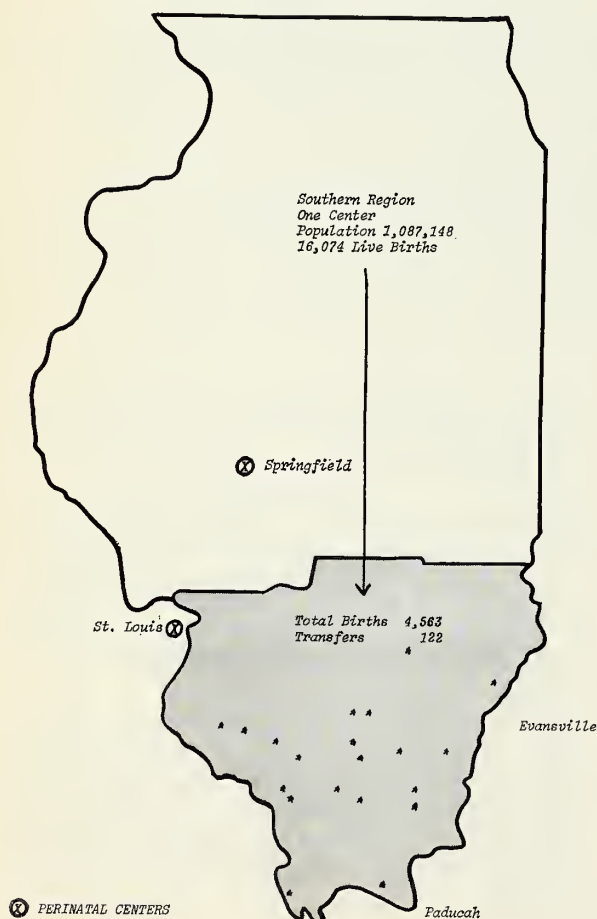


Table I
Participating Hospitals

City	Total Births	Transfers	< 2500 gms	C*	SL*
Cairo	187	13	21	9	3
Metropolis	125	6	5	4	?
Harrisburg	243	1	19	1	-
Flora	177	3	14	-	2
Marion	215	5	15	-	5
Eldorado	107	4	4	-	1
McLeansboro	40	2	1	-	1
W. Frankfort	229	4	7	1	2
Sparta	200	14	11	3	10
Carmi	234	3	5	-	-
Benton	193	5	9	2	3
DuQuoin	111	8	18	3	5
Murphysboro	253	7	24	2	?
Mt. Carmel	218	4	18	-	-
Red Bud	243	9	15	-	9
Mt. Vernon (a)	145	1	10	-	1
Mt. Vernon (b)	413	4	12	1	3
Herrin	283	15	10	6	9
Pinckneyville	256	5	12	2	2
Carbondale	691	9	39	-	9
	4,563	122	269	36	62

*C = Carbondale SL = St. Louis, Mo.

Table II
Major Participating Hospitals

City	Total Births	< 2500 gms	Transfers	% Prematurity
Cairo	187	21	13	9%
Metropolis	125	5	6	4%
Herrin	283	10	15	3.6%
Mt. Vernon (a)	145	10	1	6.9%
Mt. Vernon (b)	413	12	4	2.9%
DuQuoin	111	18	8	16%
Sparta	200	11	14	5.5%
Pinckneyville	256	12	5	4.7%
Carbondale	691	39	9	5.6%
	2,411	138	75	
				5.72% Prematurity
				3.1% Transfers

A letter was mailed to 24 area hospitals, 20 of which responded. (Figure 1.) These hospitals comprise but a portion of the Southern Region in the Perinatal Plan that has a population of approximately 1,087,148 with 16,074 total births. These 24 hospitals account for 138 bassinets. This letter outlined the services available at Doctors Memorial Hospital which are:

1. Respiratory distress. (No ventilator cases)
2. Erythroblastosis fetalis and other causes of hyperbilirubinemia.
3. Hypoglycemia.
4. Hypocalcemia.
5. Sepsis.
6. Seizure disorders.
7. Prematurity and small for gestational age babies.

Since this letter of introduction, two pediatricians and one registered nurse have received postgraduate training from the University of Colorado School of Medicine, Denver, Colorado, in high risk infant care.

The unit is staffed by three pediatricians and a full complement of R.N.'s and L.P.N.'s. A positive impact is now being realized by the area physicians and nurses and has resulted in the referral of 34 infants to DMH (Table III) and at least 56 other Southern Illinois infants referred to St. Louis, Missouri.

Impact of the Program

Twenty hospital have participated in the program to varying degrees. There have been 4,563 total births with 122 transfers to various centers. (Table I, Figure 1.) There were 269 (5.85% infants 2500 grams). 2.67% of the area babies delivered required transfer. The bulk of the referrals to Carbondale were from Cairo, Metropolis, Herrin, Mount Vernon, DuQuoin, Sparta, and Pinckneyville. (Figure 2.) These hospitals, including Doctors Memorial Hospital, accounted for 52.8% of the total births (i.e.: 2,411 of 4,563.) There were 138 infants weighing less than 2500 grams, along with 75 referrals. 3.1% of the total live births were transferred and the prematurity rate was 5.72%. (Table III)

Table III
Babies Transferred by Doctors Memorial Hospital
May 2, 1974 — April 30, 1975

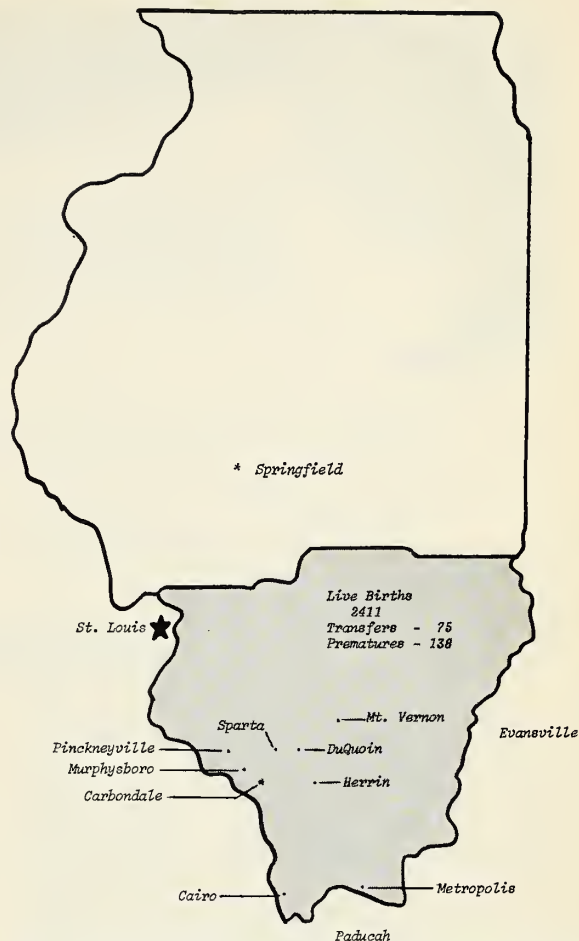
	IN	OUT
May	0	1
June	1	1
July	2	1
August	4	0
September	5	1
October	2	1
November	4	0
December	2	4
January	2	0
February	2	0
March	7	1
April	3	0

Eight infants, three females and five males, that were involved in transfers either into or out of Doctors Memorial Hospital died.

Five of these infants had conditions requiring surgical intervention. Mortality statistics are difficult to state accurately as deaths at the receiving and referring hospitals are not known.

Skills as well as the necessary equipment to care for the perinatal patient are constantly being updated. There is an ongoing program of inservice education and seminar-type meetings to assure the dissemination of current information. The intent of the unit is to provide ample *quali-*

FIGURE 2.
PRIMARY REFERRAL AREA TO CARBONDALE



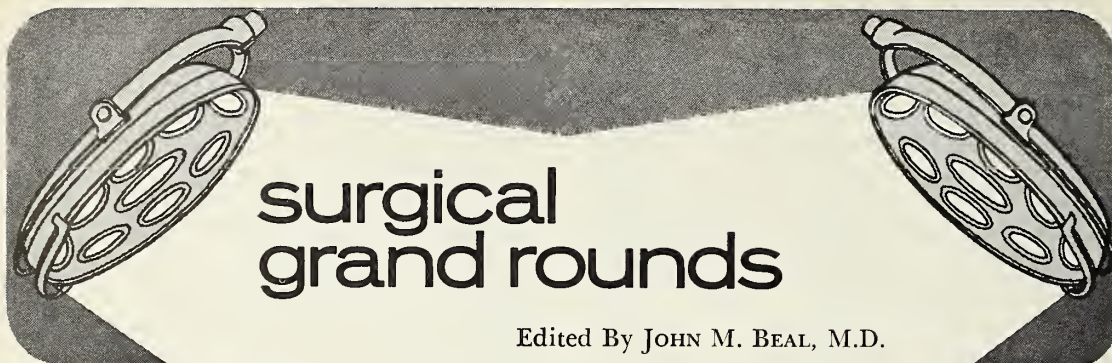
fied care for the perinatal patient coupled with family involvement and referral to area physicians.

- | | | |
|---------------------------|-------------------|--|
| 1. Female T
7# 10½ oz. | DMH → CG | Congenital Heart Disease |
| 2. Female N
5# 12½ oz. | DMH → CG | TEF, Imperforate Anus,
Rectovaginal Fistula |
| 3. Male R
9# 12½ oz. | Herrin → DMH → CG | Intracranial Bleed |
| 4. Male C
7# | Sparta → DMH | RDS with HMD |
| 5. Male S
6# 6 oz. | Mt. Vernon → DMH | RDS |
| 6. Male S
5# 6 oz. | DMH → CG | Bowel Obstruction with
Atresia |
| 7. Male H
2# 2 oz. | Cairo → DMH | RDS with HMD |
| 8. Female J
7# 1½ oz. | DMH → SLCH | Meningomyelocele |

Initial Activities

The following activities were performed during this grant period and others are still in progress.

(Continued on page 535)



Surgical Grand Rounds are held weekly on Tuesday at 5:00 p.m. in the Offield Auditorium of the Passavant Pavilion of Northwestern Memorial Hospital. Patient presentations from Northwestern Memorial Hospital and the Veterans Administration Lakeside Hospital form the basis for the discussions. This case report was part of the Surgical Grand Rounds of July 29, 1975.

Insulinoma

Dr. Stanley Carson: A 33-year-old male complained of intermittent attacks of bizarre behavior associated with tachycardia and excessive perspiration since May, 1974. The patient also experienced excessive tiredness, particularly in the morning, so that his wife would have to feed him before she could fully arouse him to get out of bed. Later, the patient noticed that he could alleviate these attacks promptly by eating. He was examined by his doctor who performed a glucose tolerance test, which was reported as abnormal, with a significantly low fasting glucose.

The patient was referred to the Northwestern Memorial Hospital for study of his hypoglycemia. Physical examination was unremarkable and routine blood count and urinalysis were normal. A glucose tolerance test combined with serum insulin levels was obtained. The fasting blood glucose level was considered to be normal and the insulin levels were not considered to be diagnostic.

The patient fasted and thirty-six hours later, he became combative and difficult to manage. A blood glucose was drawn and orange juice administered, which stopped the episode. The glucose level was 47 mg. % and the patient was discharged on frequent feedings.

Additional Studies and Diagnosis

On May 8, 1975, the patient was readmitted for additional diagnostic studies. A glucagon pro-

vocative test, a leucine provocative test, and a repeat glucose tolerance test with insulin levels were obtained. The glucagon provocative test and the glucose tolerance test were equivocal. The leucine provocative test was considered diagnostic for insulinoma. The patient was operated upon May 13, 1975, with a presumptive diagnosis of islet cell tumor of the pancreas.

Dr. Julius Conn, Jr.: The patient was explored through an upper abdominal transverse incision. A wide incision was made in the gastrosplenic and gastrosplenic ligaments to expose the entire body and tail of the pancreas, which was normal to inspection. The posterior surface of the pancreas was examined by freeing its inferior border and, again, this area was normal. The duodenum was mobilized by a wide Kocher maneuver. The head of the pancreas was palpated carefully and a discrete firm area was felt in the head of the pancreas, which measured approximately one cm in diameter. Throughout this entire time, blood sugar levels which were obtained from both a peripheral vein and the portal vein had not changed.

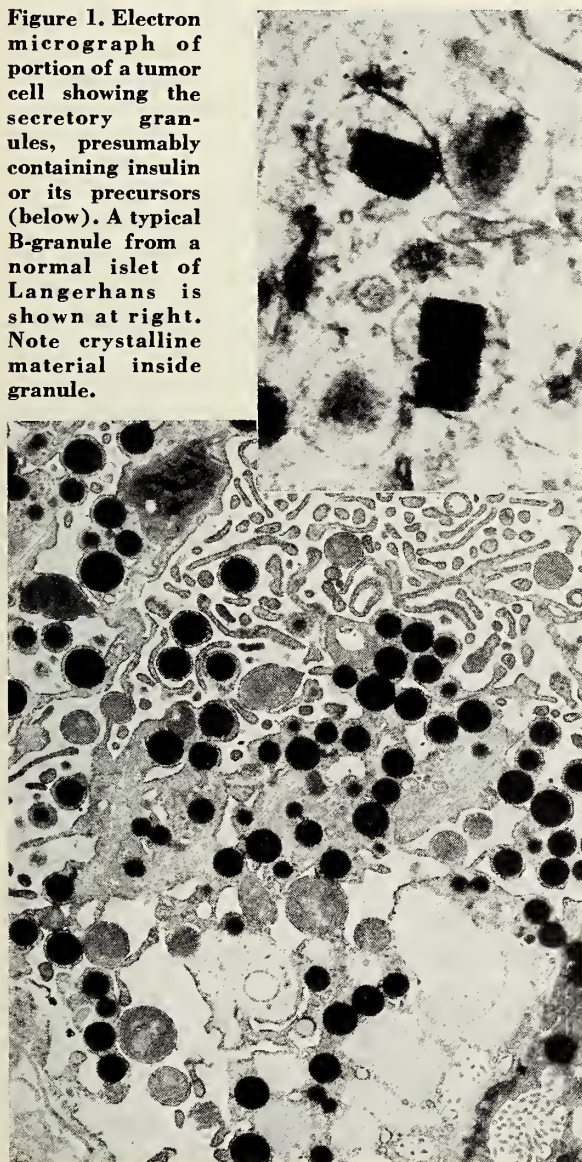
The mass in the head of the pancreas was buried in the substance of the pancreas adjacent to the wall of the duodenum and could not be seen until the overlying pancreatic tissue was incised. This mass had a capsule of reddish brown color. It was dissected from the adjoining tissue with a small curved clamp. Within ten minutes the patient's blood sugar level began to rise and

after one hour, continued to rise. Drains were inserted to the site of resection of the tumor. The patient had an uneventful postoperative course. Two months elapsed after the operation and symptoms had not reoccurred.

Histology of the Tumor

Dr. Hector Battifora: The adenoma weighed 600 mg. and appeared to have been enucleated; however, there was a rim of normal pancreatic tissue around it. The histology of the tumor is typical of an islet cell tumor. The ultrastructure reveals presence of secretory granules. These granules, however, do not have the typical appearance of beta cell granules (insulin granules) (Figure 1).

Figure 1. Electron micrograph of portion of a tumor cell showing the secretory granules, presumably containing insulin or its precursors (below). A typical B-granule from a normal islet of Langerhans is shown at right. Note crystalline material inside granule.



Classical beta cell granules have a crystalloid nucleus. Absence of such granules is not surprising. Most insulinomas we have studied with the electron microscope lack these structures. At least two explanations could be offered for this seemingly atypical morphology. One is that the granules are released before they reach maturation. Another possibility is that the tumor actually is making a substance with an insulin effect, but a different chemical make-up, and therefore a different morphology. Furthermore, it has recently been shown that many of these tumors do make more than one substance and insulinomas have been found to contain gastrin and other related substances, although in subclinical quantities.

Establishing a Diagnosis of Insulinomas

Dr. Boyd Metzger: This patient's symptoms fit quite typically with fasting hypoglycemia. Before we had completed the work-up as described, one could say that this patient fulfilled Whipple's triad, which formerly was used as the basis for diagnosis of insulinomas. We attempt to establish a diagnosis of insulinoma differently today for two reasons: 1) We have the means of making a precise diagnosis and 2) if we can be secure in our diagnosis, our surgical colleagues can be more confident about being surgically aggressive. Fortunately in this case, Dr. Conn was able to identify a very small tumor in a portion of the pancreas where identification can be very difficult. If he had not been able to distinguish this tumor by palpation, he could have been faced with doing a very extensive pancreatectomy, or the alternative would have been to end the procedure without alleviating the patient's symptoms. Thus, we want to be very certain about our diagnosis of insulinoma.

The first step is to establish the presence of fasting hypoglycemia as opposed to reactive hypoglycemia; the kind that a surgeon gets while standing in the operating room three hours after eating a high carbohydrate meal. Such hypoglycemia results in transient shakiness or irritability. It is usually alleviated without treatment within 15 to 20 minutes. Fasting hypoglycemia typically occurs during more prolonged periods without food intake and comes on slowly. It may lead to loss of consciousness and, primarily, neurological symptoms, rather than those of epinephrine discharge. This sort of hypoglycemia is progressively deepening and may be fatal unless external corrective measures are taken.

When fasting hypoglycemia occurs, we want to establish that the insulin level is inappropriate

for the glucose level. Thus, the most conclusive diagnostic maneuver is to subject the patient to a prolonged fast, while measuring insulin levels. A normal person will show a decline in serum insulin during a fast, as blood sugar declines and then plateaus. A patient with an insulinoma will not have a decline in serum insulin during the fast and may show other metabolic effects of the insulin. He may develop ketosis very slowly, so that even if he is able to tolerate a fast of 48 or 72 hours, he may not become ketotic. He has glycogen left in his liver which can be mobilized upon appropriate stimulation. A normal patient would have little glycogen remaining in his liver to mobilize after a fast of that duration.

Documentation, Key to Diagnosis

The documentation of fasting hypoglycemia is the key to the diagnosis, rather than the use of provocative tests. In instances where absolute hyperinsulinemia is not seen, such tests do provide ancillary evidence in support of the diagnosis. The tolbutamide test was used to evaluate patients suspected of harboring insulinomas before insulin measurements were widely available.

When tolbutamide is given to normals, the blood glucose level declines and then returns to preinjection levels within two to three hours; whereas in insulinomas, there is a failure of glucose recovery. There are other metabolic conditions which can lead to a similar poor glucose response; thus, reliance on glucose response alone can be misleading. However, characteristically, there is also a prompt and higher than normal insulin secretion after tolbutamide. In some instances, insulin levels may reach 1,000 micro-units per milliliter or higher. Excessive insulin response to tolbutamide can also be found in obesity and other states of insulin resistance; thus, both false positive as well as false negative results can be seen.

The use of oral leucine in the patient under discussion today was alluded to earlier. Under normal circumstances, there should be little change in peripheral plasma insulin levels and no decline in plasma glucose. About 60% of patients with insulinoma will show a significant insulin response to oral or intravenous leucine. Such a response supports the diagnosis of insulinoma.

Importance of Molecular Forms of Circulating Insulin

The molecular forms of circulating insulin in patients with insulinoma is of considerable interest. In 1967, Steiner and his co-workers at the University of Chicago first identified proinsulin,

the single chain precursor of the insulin molecule. In the normal process of insulin biosynthesis, maturation of the beta granules and storage of insulin in the islet, the c-peptide or connecting segments of proinsulin is split out of the molecule and packaged with insulin in the granule. When insulin is secreted into the circulation, an equi-molar amount of c-peptide and only a small amount of proinsulin are released. It has been found that approximately 60 to 80% of patients with an insulinoma secrete an abnormal amount of the intact product, (i.e., proinsulin) suggesting that such tumors lose the ability to convert proinsulin to insulin and store the products normally. In fact, 65% of the total insulin immunoreactivity in our patient's peripheral plasma was in the form of proinsulin. This information further corroborated the diagnosis of insulinoma.

Results of Tests

Let us now review the results of the tests performed in our patient. Basal insulin levels were higher than normal and, as mentioned earlier, approximately 60 to 70% proinsulin. Tolbutamide and glucagon elicited insulin responses moderately above normal and he responded to leucine with an increase in insulin from 50 to 100 microunits, an increment definitely higher than normal. During a fast, his plasma glucose dropped from an initial value of 65 mg. % to the mid forties within 12 hours and by 24 hours, it stabilized at 40 mg. %. However, plasma insulin failed to decline at all, remaining elevated at about 45 microunits per ml.

Using Arteriography

One other diagnostic maneuver has been advocated preoperatively in such patients. It is the use of arteriography to localize the tumors. In the literature, it has been reported that approximately 70% of insulinomas can be localized by arteriography. Arteriography has been attempted on five patients that I have followed. In none has an insulinoma been demonstrated preoperatively. Arteriography was attempted in our current patient, but he manifested a reaction to contrast material and the test had to be abandoned.

Intraoperative Monitoring of Blood Glucose

Intraoperative monitoring of blood glucose levels was carried out in our patient. At the time anesthesia was induced, his glucose was about 80 mg. %. We prevented hypoglycemia by supplying intravenous glucose until about six hours before surgery. No glucose, lactate, or other glucose pre-

cursors were given during operation, only normal saline. The initial trauma of the abdominal incision and manipulation increased glucose to a constant level of about 100 mg. %. Within 15 minutes after the tumor was removed, blood glucose values began to increase and leveled off in an hour. We now have techniques available so that we can determine blood glucose levels within two minutes of the time that it is drawn. This provides very good moment-to-moment correlation and provided confirmation that the tumor was responsible for the hypoglycemia in our patient.

In looking at the insulin levels taken during the operation, we can see that within a few minutes of removal of the tumor, the insulin level began to decline and eventually fell to low, normal levels.

Dr. Julius Conn, Jr.: Is proinsulin biologically active?

Dr. Boyd Metzger: It probably is, but the activity is no more than five to ten percent than that of insulin.

Dr. Julius Conn, Jr.: When last seen, the patient had been symptom free for six months. ◀

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Regionalized Perinatal Care

(Continued from page 531)

- The demonstration of the transport islette (OHIO) to nine area hospitals with 235 persons in attendance. This was done through the cooperation of the Emergency Medical Services staff at DMH.
- Lectures were given to three area hospitals on various topics concerning the Neonate.
- A seminar was planned and presented on June 11, 1975, at Southern Illinois University, on Current Concepts in Perinatal Medicine. This was hosted by the staff at DMH and delivered by the Perinatal staff of St. Louis Children's Hospital.
- Talks on Neonatology were also delivered at the 1974 annual satellite conference of the Illinois Department of Maternal and Child Health and at "Trauma Day" sponsored by Emergency Medical Services at Doctors Memorial Hospital.

Conclusion

The infant mortality in Southern Illinois has usually been rather high for many reasons, including scant numbers of physicians coupled with a high risk population. All this is complicated by poor roads and long transfer times under the old premature program.

It is hoped that with the unit at Doctors Memorial Hospital, Carbondale, that the mortality rate can be reduced through good relationships with area hospitals and the early detection of perinatal problems accomplished by an outreaching educational program. The transport system staffed by trained registered nurses at Doctors Memorial Hospital with aid from the E.M.S. is continually improving and a triage system is presently functioning that aids in determination of the strata of care needed. This unit, with the cooperation of St. Louis Children's Hospital, will eventually realize the low infant mortality rate for which Southern Illinois is striving.

It should be noted that this hospital in no way means to ignore the present state perinatal plan but, rather, is trying to improve the care delivered to its patients. We seek to eventually become an integral part of the plan as the program expands. ◀



medical legal review

Minors and Consent

BY ISMS GENERAL COUNSEL

The issue of consent regarding medical treatment administered to minors is covered by statute in Illinois. Chapter 91, Sections 18.1-18.7, ILLINOIS REVISED STATUTES. Generally speaking, any parent, including a parent who is a minor, may consent to the performance of a medical or surgical procedure upon his or her child. If, at the time of consent, the parent is a minor, the parent is treated as having the same legal capacity to give consent as a parent who is of legal age, so that once given, the consent may not be withdrawn by the minor-parent because of such minority.

The statute goes on to carve out certain exceptions to the general rule stated above. Where a hospital or physician renders emergency treatment or first aid to a minor, consent of the minor's parent or legal guardian need not be obtained if, in the sole opinion of the physician or hospital, the obtaining of such consent is not reasonably feasible under the circumstances without adversely affecting the condition of the minor's health.

Furthermore, a minor twelve years of age or older, who may have come in contact with any venereal disease or suffers from the use of depressant or stimulant drugs, as defined in the Drug Abuse Control Act, or narcotic drugs, as defined in the Uniform Narcotic Drug Act, may give consent to the furnishing of medical care counseling related to the diagnosis or treatment of such disease. The consent of the minor in cases such as this is considered to be valid and binding as if the minor had achieved his or her majority. Such consent is not voidable or subject to later disaffirmance because of the child's minority.

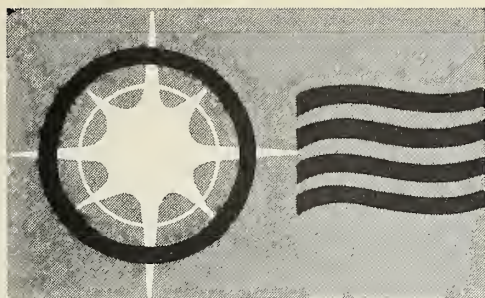
Finally, birth control services and information

may be rendered by fully licensed physicians in Illinois to a minor, provided that the minor is:

- (1) married; or
- (2) a parent; or
- (3) pregnant; or
- (4) who has the consent of parent or legal guardian; or
- (5) as to whom the failure to provide such services would create a serious health hazard; or
- (6) who is referred for such service by a physician, clergyman or a planned parenthood agency.

Some question has arisen as to when ear piercing is performed on a minor child. Assuming that this procedure does not fit into one of the exceptions noted above, it would appear that a physician would have to obtain the consent of a parent before performing that procedure upon the minor. If the parent is a minor at the time consent is given, that parent is treated, for purposes of consent, as having the same legal capacity as an individual who has reached legal age.

Although there are no Illinois cases on this particular subject, it would appear that the physician would be protected once valid consent has been obtained. The consent would not be subject to disaffirmance by the minor child because the consent was initially given by the parent. It is only where the consent is given by the minor, in certain instances, that it may later be disaffirmed. And, as indicated above, the statute goes further to protect the physician by stating that even if the parent is a minor, that consent, once given, is not subject to disaffirmance by the minor-parent. ◀



membership forum

Dear Dr. Van Dellen:

Again this year I am compiling a Biting Insect Summary and would appreciate any case reports of unusual allergic reactions, especially systemic (sneezing, wheezing, urticaria) to bites of insects; i.e., mosquitoes, fleas, gnats, kissing bugs, bedbugs, chiggers, black flies, horseflies, sandflies, deerflies, etc.

I would like physicians to supply me with case reports of those patients who have had unusual reactions to such insects. Include in your reports the type of reactions (immediate and delayed symptoms), treatment, the age, sex, and race of the patient, the site of the bite(s), the season of the year, and any other associated allergies.

If skin tests and hyposensitization were instituted, I would like the report of both. Please note that it is the biting (not stinging) insect in which I am interested. If you have found any insect repellent, local treatment, or insecticides of value, I would also appreciate this.

Please send this information to: Claude A. Frazier, M.D., 4-C Doctors Park, Asheville, NC 28801.

Thank you for your assistance.

Sincerely,
Claude A. Frazier, M.D.

Dear Doctor Van Dellen:

I would like to make several comments about the article appearing in the April 1976 issue of the *Illinois Medical Journal* by Ralph C. Green and Earl E. Suckow.

In their explanation of the possible etiology of a carcinoid tumor of the external anus, they have suggested that this may have begun in a congenital cyst, or by rectal glands which extend subcutaneously caudally. I would like to suggest an additional explanation which would bear investigation in this particular case.

It has been well documented that implanta-

tion of tumor cells at the site of a previous hemorrhoidectomy or fissurectomy in patients with adenocarcinoma of the rectum can occur. Behrs reported four such cases of cancer in 1955, and numerous other reports are referred to by Doctor Warrent Cole in his book on dissemination of cancer, published by Appleton, Century and Crofts in 1961. It would seem to me that an alternative explanation for the carcinoid tumor occurring in the external anus, reported by Doctor Green and Doctor Suckow, might be an implantation carcinoid resulting from a carcinoid tumor somewhere higher in the G.I. tract. Careful follow-up of this patient, with this in mind, may be indicated.

Sincerely yours,
James H. Mason, M.D.

Dear Dr. Van Dellen,

I am enclosing a letter (see below) from Lloyd Nyhus, concerning a recent article in the *Illinois Medical Journal*.

I agree with him that this is an undesirable operation and that indeed it is something that is not acceptable according to surgical principles at the present time. I join Lloyd in his objections to this type of procedure.

Sincerely,
John M. Beal, M.D.
Contributing Editor, Surgical Grand Rounds

Dear Dr. Beal,

Time has not allowed a formal note of complaint to Dr. Van Dellen about the atrocious article, ["Intraabdominal and Pelvic Surgery without Visible Scars," by T. Shelly Ashbell, M.D.], which appeared in the January, 1976, *Illinois Medical Journal*. This seems to be foreign to all principles of acceptable operative procedures. Illinois deserves better!

Lloyd M. Nyhus, M.D.
Surgeon-in-Chief, University of Illinois Hospital

Diagnosis of Triplets by Ultrasonography

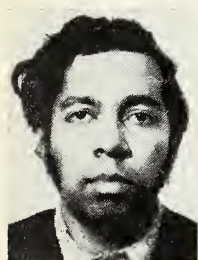
BY SANGARAPPILAI ASOKAN, M.D. AND ROGER PINC, M.D./CHICAGO

The use of ultrasonography in the diagnosis of multiple gestation is well established.^{1,2} A case of triplets is presented where the diagnosis was made by ultrasonography.

A 32-year-old Black female, gravida 4, para 1 (one abortion, one still born) was admitted to Cook County Hospital on 4/16/75 because of anemia. Her last menstrual period was on 9/30/74; however, on examination the height of the fundus was found to be consistent with a 36 week gestation. She was referred for ultrasonography to rule out a twin pregnancy.



Figure 1. Longitudinal scan in the mid ventral line (MVL). The patient's feet are towards the right side of the picture. FT-fetal thorax in upper abdomen. FT-fetal thorax in lower abdomen. T-position of transducer over the thorax in the lower abdomen. Fetal heart beats recorded (see Figure 7).



SANGARAPPILAI ASOKAN, M.D., is Attending Radiologist and Section Chief of the Division of Ultrasound at Cook County Hospital. He received his medical degree from the University of Ceylon and did his residency at Cook County Hospital. Dr. Asokan is a member of several professional societies, including the American College of Radiology.

ROGER DAVID PINC, M.D., is Chairman of the Department of Radiology at Cook County Hospital and Professor of Radiology at that hospital's Postgraduate School of Medicine. He is also Director of the Radiologic Technology Program at Malcolm X College. Besides being a member of several professional societies, Dr. Pinc is active as a Governing Member of the Glenwood School for Boys, professional consultant to various committees of the Illinois General Assembly and on the Board of Directors of the South Shore Commission.



The ultrasonogram was done basically as for any routine obstetric examination with longitudinal and transverse scans, except that the B-scan sections were taken at much smaller intervals (.5 cm. to 1 cm. instead of 2 cms.) This was done to make sure that neither fetal heads nor thoraces were missed during the course of the examination.

In this case, three fetal heads and three fetal bodies were identified. The heart beats of the fetuses were independently identified by placing the transducer over the fetal thoraces and converting the instrument to a motion mode. The heart beats were then recorded on a strip chart recorder.

On 5/22/75, three live female infants were delivered by cesarean section.



Figure 2. Longitudinal scan 3 cms. to the left (3L). FH₃-Fetal head number 3 in left upper uterus.

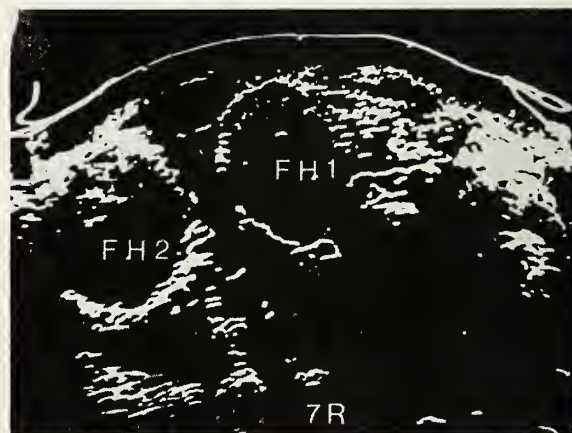


Figure 3. Longitudinal scan 7 cms. to the right. FH₁-Fetal head number 1 in right mid uterus. FH₂-Fetal head number 2 in right upper uterus.



Figure 4. Transverse scan 14 cms. above pubic symphysis-level of umbilicus (UMB) FT-Fetal thorax at level of mid uterus. T-Position of transducer for fetal heart beats (see Figure 8).



Figure 5. Transverse scan—18 cms. above pubic symphysis (PS+18). FH₁ in the right mid uterus. FT-Fetal thorax.



Figure 6. Transverse scan 23 cms. above pubic symphysis (PS+23). FH₂ in right upper uterus. FH₃ in left upper uterus. Fetal thorax in upper uterus.



Figure 7. Fetal heart beats recorded from thorax in lower abdomen (position of transducer T in Figure 1).

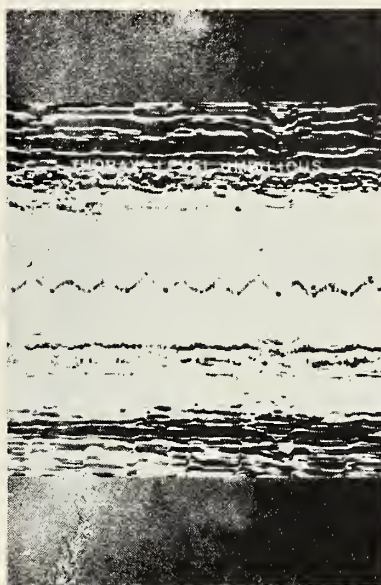


Figure 8. Fetal heart beats recorded from thorax in mid abdomen (position of transducer T in Figure 4).

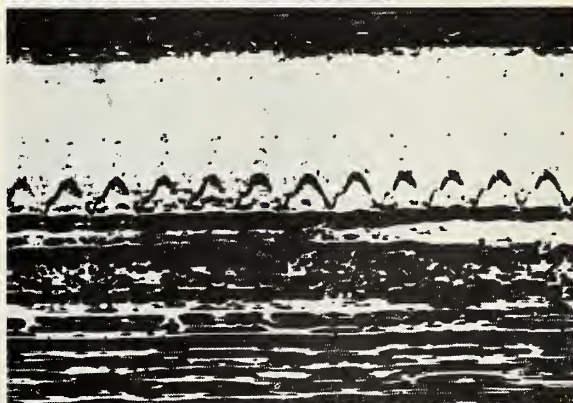


Figure 9. Fetal heart beats recorded from thorax in upper uterus.

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Analysis of a New Highly Active Corticosteroid

BY ROLAND S. MEDANSKY, M.D. AND RAYMOND M. HANDLER, M.D./PARK RIDGE

Despite the success that has been achieved with topical corticosteroids, many believe that their dermatologic limits have yet to be reached. Maibach¹ noted that by improving delivery of the active agents to the skin, one may attain more effective therapy in resistant dermatoses. Absorption may be enhanced by suspending an active agent in an improved delivery vehicle.

McKenzie and Stoughton² confirmed this opinion in their study on the percutaneous absorption of steroids. They found that a specially formulated alcoholic solution of betamethasone valerate helped to provide an ED₅₀ (mean effective dose) at one ten thousandth the concentration of an alcoholic solution of hydrocortisone acetate.

Recently, the above-mentioned vehicle formulation and a newly developed potent corticosteroid betamethasone dipropionate* were combined and evaluated by 20 dermatologists as a 0.05% lotion.

Laboratory and clinical evidence to date has indicated that this steroid is highly effective and potent both as a cream and as an ointment in the treatment of corticosteroid responsive dermatoses. Its exceedingly rapid action in overcoming acute and longstanding dermatologic problems has been of particular interest. Since the effectiveness and safety of betamethasone dipropionate is primarily documented as a cream and ointment,³⁻⁶ it was determined to examine this new corticosteroid as a lotion in corticosteroid-responsive dermatoses.

Sensitization tests on 205 (114 male, 91 female) volunteers found no incidence of contact sen-

sitization to the betamethasone dipropionate lotion 0.05%.

All the investigators in the study plan followed a similar protocol and the data was combined for clinical and statistical analysis. This provided a sufficient sampling of patients to offer a statistically accurate picture of this new corticosteroid as a lotion in today's therapeutic milieu of highly effective topical agents.

Two studies were conducted which employed a randomized double-blind technique without crossover to compare betamethasone dipropionate lotion 0.05% to its vehicle. The first study was for the treatment of moderately severe to severe seborrheic dermatitis and the other for psoriasis. Both studies were multi-centered, and were carried out by the same group of investigators.

Study I Design for Selection of Control and Drug Group Psoriasis of the Scalp and/or Body

Each patient received a sequential admission number and corresponding treatment unit at the onset of the study. All patients had a primary diagnosis of psoriasis of the scalp and/or body. Psoriasis was diagnosed where there were "well defined salmon pink or rich red lesions surrounded by a characteristic silvery scaling on an erythematous base."

There were 384 patients in the study, 203 in the control group (55 acute, 148 chronic) and 181 in the drug-treated group (55 acute, 148 chronic). The term acute was used for patients having psoriasis for less than 6 months duration, whereas the term chronic was considered to be more than 6 months.

The lotion was applied twice daily and rubbed well into the lesions of both the control and drug treated groups. Scales from psoriatic le-

*Betamethasone dipropionate 0.05% (Diprosone) Schering Corporation, Kenilworth, N.J.

ROLAND S. MEDANSKY, M.D., has a private practice in dermatology and is attending physician at Lutheran General and Resurrection Hospitals. He is also Clinical Associate Professor at Abraham Lincoln School of Medicine, University of Illinois, Consultant to Illinois State Psychiatric Institute and Forest Hospital, and Treasurer of the Academy of Psychosomatic Medicine.



RAYMOND M. HANDLER, M.D., has a private practice in dermatology and is an attending dermatologist at Lutheran General and Resurrection Hospitals. He is also Clinical Assistant Professor at Abraham Lincoln School of Medicine at the University of Illinois, and Consultant in dermatology to the Park View Home for the Aged.

sions were removed prior to the application of the lotion. No occlusive dressings were used and no other active medications such as antibiotics or systemic steroids were applied. No concomitant medications were used. Non-medicated Neutrogena solid shampoo was used twice weekly for shampoo.

The treatment period was 14 days. Clinical observations were recorded initially and again at each of the follow-up visits which were scheduled on the third, seventh and fourteenth days. The following signs and symptoms were evaluated: scaling, erythema, pruritus and crusting. In addition, an overall evaluation of the condition was made.

The only adverse reactions noted were burning and/or stinging in 14 out of 166 patients using the medication and 16 out of 183 patients using the vehicle.

Twenty-six patients were discharged from the study early and were considered to be cleared, whereas two patients using the placebo were also discharged as cleared prior to 14 days. Twenty patients using the vehicle and two patients using betamethasone dipropionate lotion 0.05% were discharged early from the study because treatment was regarded as a failure.

Results

The results, as shown in Table 1, clearly indicate the effectiveness of betamethasone dipropionate lotion 0.05% as compared to its vehicle alone. A response was evident after three days in many patients.

The statistical probabilities with respect to the following: overall evaluation of condition, scaling, pruritus, physicians' opinion of drug effect, total symptom score, and physicians' overall evaluations, are presented in Table 2. All favor betamethasone dipropionate lotion 0.05%. In addition to those differences presented in Table 2, the number of therapeutic failures was also significant ($p < .01$). There were more fail-

Table 2
Betamethasone Dipropionate Lotion 0.05% and its Vehicle in Psoriasis
Probabilities Associated with Each Parameter at Visits 1-4*

	Initial Visit**	Visit 2	Visit 3	Visit 4
Overall Evaluation	>.78	.00038	<.00001	<.00001
Scaling	>.30	.030	<.00001	<.00001
Pruritus	>.32	.00078	<.00001	<.00001
Thickness-Scales	>.50	.0026	<.00001	<.00001
Crusting	>.74	.00052	<.00001	<.00001
		.011	.00050	<.00001
Total Symptom Score	>.74	.00023	<.00001	<.00001
Physician Evaluation of Drug Effect	—	<.00001	<.00001	<.00001
Physician Overall Evaluation (last visit)				<.00001

*All differences favored betamethasone dipropionate lotion 0.05%.
**At initial visit there were no significant differences between active treatment group and control group.

ures with the vehicle. No other significant differences were indicated ($p > .10$).

Study II Seborrheic Dermatitis

Except for the diagnostic category of seborrheic dermatitis, the protocol and double-blind technique are identical to the previously described multicentered trial of betamethasone dipropionate lotion 0.05% vs. placebo in the psoriasis study.

All patients had a primary diagnosis of moderate, severe or very severe seborrheic dermatitis. Both acute and chronic cases were included. Seborrheic dermatitis was defined as dull or yellowish red in color, sharply margined and covered with greasy scales.

Four hundred and four patients participated in the study, 203 in the control group and 201 in the drug-treated group. There were no significant differences in age and sex between the treatment and control groups. There were 34 moderate, 127 severe, 40 very severe in the betamethasone dipropionate group and 32 moderate, 127 severe and 44 very severe in the control

Table 1
Betamethasone Dipropionate Lotion 0.05% and its Vehicle in Psoriasis
Physicians' Overall Evaluation of Treatment*

	Excellent	Good	Fair	Poor	Exacerbation	Total
Betamethasone Dipropionate	77 (42%)	45 (24%)	32 (17%)	26 (14%)	1 (5%)	181
Vehicle	25 (12%)	19 (9%)	46 (23%)	95 (47%)	17 (8%)	202**

*Differences in physicians' appraisal of outcome of treatment are significant at the $p < .001$ level favoring betamethasone dipropionate lotion 0.05%.

**Overall evaluation was not specified for one patient.

group. There were 89 acute and 112 chronic cases in the betamethasone dipropionate group and 80 acute and 123 in the control group.

Both control and drug-treated groups were on the same dosage and observation schedules. The lotion was rubbed into the lesions twice daily. Scales from the scalp were removed by rubbing during the daily bath. No occlusive dressings, no concomitant medications and no other active medications, such as antibiotics or systemic steroids, were used. Non-medicated Neutrogena solid shampoo was used by all patients for twice-weekly shampoo.

The treatment period was 14 days. Clinical observations were recorded initially and again at each of the follow-up visits which were scheduled on the third, seventh and fourteenth days.

A total of 42 patients were discharged early by the investigators. Eighteen patients treated with betamethasone dipropionate lotion 0.05% were discharged because they were regarded as successfully cleared and no further treatment was necessary. One patient treated with betamethasone dipropionate lotion 0.05% was discharged early because treatment was regarded as a failure. Ten patients treated with placebo were therapeutically cleared and discharged prior to the last visit, thirteen patients treated with placebo were discharged early because of failure to respond.

Results

The results, as presented in Table 3, clearly indicate the effectiveness of betamethasone dipropionate lotion 0.05% compared to its vehicle. A positive response was evident in many patients after three days.

The statistical probabilities with respect to the following: overall evaluation, scaling, erythema, pruritus, physicians' opinion of drug effect, total symptom score, and physicians' overall evaluation, are presented in Table 4. All favor betamethasone dipropionate lotion 0.05%.

Table 4
Betamethasone Dipropionate Lotion 0.05% and its Vehicle in Seborrheic Dermatitis
Probabilities Associated with Each Parameter Evaluated at Each Visit*

	Initial Visit**	Visit 2	Visit 3	Visit 4
Overall Evaluation	.63	.00002	<.00001	<.00001
Scaling	.64	.00042	<.00001	<.00001
Erythema	.98	.00008	<.00001	<.00001
Pruritus	.56	.000026	<.00001	<.00001
Thickness-Scales	.69	.024	<.00001	<.00001
Crusting	.50	.064	<.00001	<.00001
Total Symptom Score	>.80	.00003	<.00001	<.00001
Physician Evaluation of Drug Effect	—	<.00001	<.00001	<.00001
Physician Overall Evaluation (last visit)				<.00001

*All differences favored betamethasone dipropionate lotion 0.05%.

**At initial visit there were no significant differences between active treatment group and control group.

Overall Results of Studies I and II

In two multicentric clinical studies involving 20 investigators and 788 patients, betamethasone dipropionate lotion 0.05% was found to be significantly more effective than, and as safe as, the vehicle in the treatment of psoriasis and moderately severe to severe seborrheic dermatitis. Statistical tests determined this significance at a value of <.0001.

The final result of the studies discussed indicates that betamethasone dipropionate lotion 0.05% is safe and effective in the treatment of psoriasis and seborrheic dermatitis.*

Side effects consisted of burning, stinging, itching and dryness; symptoms that could be expected of an alcoholic lotion applied to open lesions. The incidence of side effects was low in all treatment groups. Of the 55 instances reported, 22 oc-

*One hundred and seventeen (57%) of 201 patients with seborrheic dermatitis had an excellent response to treatment with betamethasone dipropionate lotion 0.05% compared to 45 of 203 patients (22%) treated with the vehicle alone. In psoriasis, 77 of 181 patients (42%) had an excellent response with betamethasone dipropionate lotion 0.05% while 25 of 203 (12%) had the same response to the placebo.

Table 3
Betamethasone Dipropionate Lotion 0.05% and its Vehicle in Seborrheic Dermatitis
Physicians' Overall Evaluation of Treatment*

	Excellent	Good	Fair	Poor	Exacerbation	Total
Betamethasone Dipropionate	117 (57%)	38 (19%)	38 (19%)	8 (4%)	0	201
Vehicle	45 (22%)	42 (21%)	46 (23%)	64 (31%)	6 (2%)	203

*Differences in physicians' appraisals of outcome of treatment are significant at the $p < 0.00001$ level, favoring betamethasone dipropionate lotion 0.05%.

(Continued on page 547)



report

Illinois Society
American Association of Medical Assistants

The American Association of Medical Assistants, Illinois Society held its' 20th annual meeting April 29 to May 2, 1976, in Springfield. The theme was "Chautauqua"—an assembly lasting several days for educational purposes, combining lectures, entertainment, and so on. Forum 30 was headquarters. There were many hospitality suites and some campaigning following registration on Thursday evening.

Friday morning the House of Delegates convened with representation by nearly all of the Illinois chapters. Two new chapters were seated, North Shore Cook County and Hancock County. Welcome to ISAAMA.

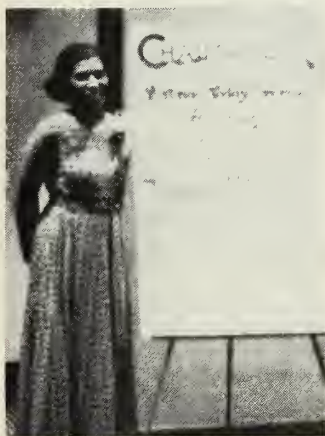
We were honored to be welcomed by the Mayor of Springfield, and Mr. Roger White, Executive Director of Illinois State Medical Society.

The Friday evening Presidents Dinner was a gala event with 25 chapter Presidents honored.

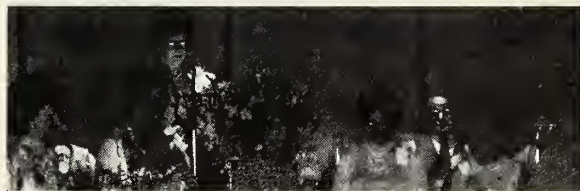
Saturday morning education sessions were well attended. Tours of Springfield hosted by Sangamon County members followed. The Installation Banquet on Saturday evening was the highlight of the convention with the incoming officers being introduced and the outgoing being honored. Sunday morning breakfast was exciting due to the many door prizes and raffles, including the Vega Hatchback car.

We would like to thank our hosts, the Sangamon County chapter, for their efforts in putting together a very successful convention and also express our gratitude to the outgoing officers for their outstanding performance in 1975-1976.

Good luck to the incoming 1976-1977 officers.



Dene Murray, Executive Director of AAMA, also spoke at the Installation Ceremony.



Illinois Society Installation Ceremony. Laura Lockhart, AAMA President (at podium) installed the new officers who are (left to right): Donna Keine, Recording Secretary; Velma Hukill, 1st Vice President; Ruby Jackson, President; Vivian Kraft, President-Elect; Jesse Breinig, 2nd Vice President; and Bonnie Anderson, Membership Secretary. Dr. Carl Clark, advisor to the Illinois Society is standing in back.

Ruby Jackson, 1976 President, Illinois Society, at Forum 30 for Installation Banquet.



Ruby Jackson, Illinois Society President, with Luella Mitchell, Trustee.



Ruby Jackson with Donna Keine, Recording Secretary from Spoonriver Valley, at the President's Reception following Installation Ceremony.



Magda Brown, Immediate Past President of the Illinois Society speaks at the Installation. Ruby Jackson and Laura Lockhart are seated.

Scenes from "Patchwork" Convention

Mrs. Eugene Vickery, ISMS Auxiliary President, presided at the opening of the 148th Annual Meeting, April 26, at the Palmer House in Chicago. A total registration of 249 was reported by Registration Chairman, Mrs. Eugene Leonard. Also registered were the following out-of-state guests; Mrs. Raymond Cornford (Velma), President, South Dakota; Mrs. Willis Dixon (Ruth), President-Elect, Michigan; Mrs. David Goldsmith (Chloe), President, Indiana; Mrs. George Wilson (Sue), President, Missouri; Mrs. Joseph Kehoe (Kay), President-Elect, Iowa; and Mrs. John Ganschow (Vera), President, Michigan.



Some guests from neighboring states at President's Luncheon.



Millie Vickery, President; Shelia Hoover, Convention Chairman; and Jane Ovitz, President-Elect at the opening session of the auxiliary.



Mrs. Clement Cunningham, Chairman of the Committee on Religion and Medicine, which determines Humanitarian Award winner; Millie Vickery, Mrs. Florence Miltenberger, Bureau County, winner of the 1976 Humanitarian Award, and Mrs. Louis Tarsinos, President, Bureau County Auxiliary.



Mrs. Henry Schorr, Chicago, awarded honorary membership in the ISMS Auxiliary by Millie Vickery.



Mickey Glatter, Millie Vickery, Eunice Roller, Shelia Hoover, with Mrs. Julius J. Wineberg (Lake County), who spoke on "Quilts, Their Beauty and Their History" at the program held Sunday evening.



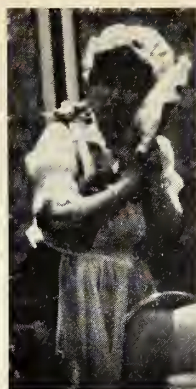
Jeanne Bray, keynote speaker, talked about "Safety on the Streets."



Mrs. Vickery pins 50-Year County pin on Mrs. Dee Boswell, President, Marion-Clinton County Auxiliary, the oldest organized county auxiliary in Illinois.



Model in "Reflections of the Past" fashion show presented by the Goodwill Industries Auxiliary.



Jane Ovitz wins a pillow as a door prize.



Mrs. Vickery and Mrs. Harlan English, Danville, past president of the AMA Auxiliary, dressed in old-fashioned outfits to celebrate the Bicentennial.



Mrs. Robert Richardson and Mrs. Wendell Roller with awards presented by Mrs. Vickery for their work as vice-chairman and chairman, respectively, of the Confluence for Health held in Chicago last November.



Mrs. Edward Szewczyk, new President-Elect of the Auxiliary.

Other high points of the convention . . . McDonough County was given a charter as the youngest county auxiliary; the design of Mrs. Thomas Cook, Stephenson County, was chosen

to be Illinois's entry in the national Auxiliary Seal contest; and Mrs. John Ovitz, Jr., was installed into the office of president by Mrs. Robert Hartman, a past president of the ISMS Auxiliary.

AMA Auxiliary Delegates Chosen

Delegates to the AMA Auxiliary, elected during the convention were: Mrs. John Ovitz, Jr., Sycamore; Mrs. Eugene Vickery, Lena; Mrs. Edward Szewczyk, Belleville; Mrs. Robert Johnson, Springfield; Mrs. Eugene Leonard, Rockford; Mrs. Robert Hartman, Jacksonville; Mrs. Reuben Gaines, Wayne; Mrs. Joseph O'Donnell, Wheaton; Mrs. Earl Klaren, Libertyville; and Mrs. Harold Keegan, Kankakee.

Alternate Delegates are Mrs. Frank Torrey, Pekin; Mrs. William Schowengerdt, Champaign; Mrs. Henry Schorr, Chicago; Mrs. William Hodges, Kankakee; and Mrs. Murry Fuchsmann, Chicago.

New ISMS Auxiliary Board



(First row, right to left) Mrs. Eugene Vickery, Director; Mrs. John Ovitz, Jr., President; Mrs. Edward Szewczyk, President-Elect; Mrs. Earl Klaren, 1st Vice-President; Mrs. William Hodges, 2nd Vice-President; and Mrs. Robert Webb, 3rd Vice-President. (Second row, right to left) Mrs. Alton Morris, Mrs. Robert Prentice, Mrs. August Martinucci, Mrs. Homer Fleisher, Jr., Mrs. Joseph O'Donnell, Mrs. Stanley Burris, Mrs. Reuben Gaines, Mrs. Paul David, Mrs. Julian Buser, and Mrs. Francis Graff. (Third row, left to right) Mrs. Alfred Faber, Mrs. Eugene Dach, Mrs. Frank Holman, Mrs. Harlan Failor, Mrs. Selig Hodes, Mrs. John Sheen, Mrs. Don Rager, Mrs. Robert Richardson, Mrs. Don Hinderliter, Mrs. R. S. Hoover, and Mrs. Harold Keegan.

Obituaries

Allman, Loren E., Stronghurst, died early in April at the age of 48. Dr. Allman graduated from Northwestern Medical School. At the time of his death, he was the only practicing physician in the town of Stronghurst.

***Crane, Cyril V.**, Dunedin, Florida, passed on in April of this year. Dr. Crane was a physician in the Chicago area for many years. He had retired to Florida.

***Doktorsky, Abraham I.**, Chicago, died April 10th at the age of 64. His distinguished career began with his graduation from Rush Medical College in 1936. A few of Dr. Doktorsky's many accomplishments include serving as President of the Chicago unit of the American Cancer Society, Past President of the Jackson Park Hospital Medical Staff, and Staff Physician at Weiss Memorial Hospital. He was a charter member and fellow of the Illinois Academy of Family Physicians and acted as its representative to the AMA Committee on Emergency Medical Services. Dr. Doktorsky was also one of the organizers of the National Registry of Emergency Medical Technicians.

Dunham, Charles L., recently passed away at the age of 68, in Washington, D.C. at the George Washington University Hospital. A 1929 graduate of Yale University, he received his M.D. at the University of Chicago, Rush Medical School in 1934.

***Feinberg, Alan R.**, Wilmette, passed away on April 15, at the age of 53. He was a graduate of Northwestern University, class of 1947. Dr. Feinberg, a nationally known allergist, was the president of the Chicago Society of Allergy, (CSA), a member of the attending staff in the allergy department at Evanston Hospital, and a renowned researcher in his field. In 1950, with his late father, Dr. Samuel Feinberg, he wrote *THE ANTHISTAMINES*, a widely known book in the field. Dr. Feinberg also contributed many articles to medical journals.

****Hanstrom, Clara E.**, Rockford, passed on April 10, at the age of 87. Dr. Hanstrom graduated from Hahnemann Medical School with the class of 1915. She practiced medicine for over 50 years.

Howard, T. R. M., Chicago, died in his home May 15, at the age of 68. Dr. Howard, founder of the Friendship Medical Center, was very active in many organizations, including the Illinois Abortion Council, and the finance committee of PUSH.

Jaffe, Bertha, Chicago, passed away on April 9, while visiting relatives in Tenafly, N.J. He was 79 years old. Dr. Jaffe was a graduate of the Vienna School of Medicine.

Johnson, John W., Chicago, died Friday, March 5, at the age of 83. He was a practicing physician in the Chicago Park Ridge area for 40 years.

***Kraus, Adrian David M.**, Fort Lauderdale, Florida, died April 1, at the age of 76. Dr. Kraus graduated from Stritch Medical School in 1929. Originally from Chicago, Dr. Kraus had retired to Florida.

****Martin, Albert G.**, Aurora, died in January of this year at the age of 67. Dr. Martin graduated from the University of Illinois, class of 1935. He had practiced in the medical professional for more than 50 years.

****Miller, E. B.**, Woodstock, passed away late in April at the age of 78. Dr. Miller was a graduate of Chicago College of Medicine, class of 1916. He had practiced medicine for more than 50 years.

Mughal, Muhammed, Chicago, died February 9, at the age of 30. Dr. Mughal, a citizen of Pakistan, was with the Cook County Hospital Cardiology Department for about 3 years.

Spencer, William L., Spokane, Washington, died January 25, in his home at the age of 75. A former resident of Gilman Lalloge Community, Dr. Spencer had served as Chief of Staff at both Sacred Heart and Deaconess Hospitals.

Stern, Nathaniel H., Chicago, died April 11, at the age of 82. A graduate of Northwestern University, he practiced medicine for 55 years in the same area where he had lived all his life. He interned at Michael Reese Hospital, and opened his practice in 1921.

Vass, Aloysius, Oak Park, died February 3, in Oak Park Hospital at the age of 73. He retired from his practice as a pathologist at Garfield Park Hospital in 1970.

****Veirs, Willard L.**, Urbana, passed away May 5, at the age of 72. Dr. Veirs was a 1921 graduate of the University of Illinois. Dr. Veirs had practiced medicine for over 50 years.

****Wendt, Alfred C., Sr.**, Huntington Beach, California, passed away April 16, at the age of 89, in Huntington Beach, California, where he retired in 1961, after many years of practice in Chicago. Dr. Wendt, a 1910 graduate of Northwestern, had been affiliated with Evangelical Hospital, now Tabernacle Community Hospital, and later with Christ Hospital, in Oak Lawn. Dr. Wendt practiced medicine for more than 50 years.

Younge, Paul A., Pekin, died March 17, at the age of 71. Dr. Younge is noted for his work in the prevention of cervical cancer.

Analysis

(Continued from page 542)

curred in the betamethasone dipropionate lotion 0.05% group, and 33 in the vehicle group. In no instance was the side effect of consequence to the course of treatment.

In light of the general experience with topical corticosteroids, it is reasonable to assume that betamethasone dipropionate lotion 0.05% would also be effective in the treatment of all skin conditions known to respond to treatment with topical corticosteroids.

Conclusion

Betamethasone dipropionate lotion 0.05% is a safe, well-tolerated and rapidly active drug whose incidence and type of side effects appear to be equal to that of currently marketed corticosteroids for dermatologic use.^{7,8}

Betamethasone dipropionate lotion 0.05% applied twice daily is highly effective in the treatment of the corticoid-responsive dermatoses

studied. In each of the studies reported here, it was significantly superior to the control agent. ◀

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NEW COLLEGE TO HOLD ANNUAL CONVENTION FOR F.M.G.s

The newly organized American College of International Physicians, Inc., composed of licensed practicing physicians who are graduates of medical schools outside of the United States, will hold its first Annual Convention, Scientific Session, and Convocation of Fellows, in Chicago, on the weekend of October 16-17, 1976.

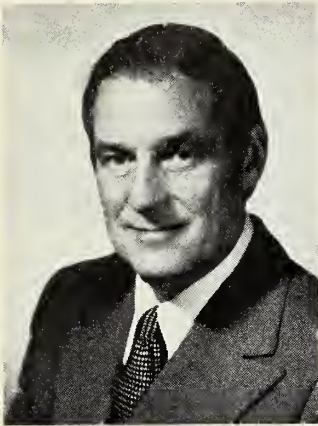
The new College was recently incorporated as a non-profit, tax-exempt corporation, and is devoted to the international physician's education and continuing advancement of skills in medicine. Fellowship in the College is open to all physicians who received their medical education in schools outside the United States, and who have been licensed to practice medicine for three years or more. Associate and affiliate Fellowship is open to all who do not meet the above requirements. Further information can be obtained from Antonio B. Dones, M.D., President, College Offices, Suite 12, 3030 Lake Avenue, Fort Wayne, Indiana 46805.

The Department of Medical Humanities, Southern Illinois University SCHOOL OF MEDICINE, Springfield, is now accepting donations of quality medical memorabilia items for use in establishing a combination TEACHING THEATRE-MUSEUM.

We are interested in any and all materials relating to early medicine in Illinois, with emphasis on the 'downstate' areas. Examples: Old instruments, cupping and leaching items; diagnostic, pharmacy, homeopathic, faradic, quackery items; records, diaries, photos, old equipment catalogs; books—only 19th century or older.

Our needs are wide, and now. Can you help us? If so, please contact:

Gordon Peckham, Curator
Southern Illinois University
School of Medicine
Box 3926, Springfield, Ill. 62708
Telephone: (217) 782-4261



President's Page

*"It is this collective liability for the maintenance of a certain quality of service which is, indeed, the distinguishing feature of a profession."**

R. H. Tawney

Peer Review

If the ISMS malpractice insurance carrier is to be a success, more than malpractice legislation is necessary. The Medical Disciplinary Board for which we have fought so hard has to be effective in finding the few charlatans and quacks in our profession, and weeding them out. However, this is not enough. We need peer review and medical audit which feed into our continuing medical education programs. In one hospital it was found that all amputations within a given time period were above the knee. The Medical Audit Committee contacted the surgeons doing these procedures. Staff conferences were held. Outside experts were called in. Following re-evaluation, within a similar time period, only two above the knee amputations were done and these because of below the knee failures. Here is a dramatic example of how peer review can improve care, lead to updating of knowledge on the part of the entire staff and incidentally reduce malpractice risk. Everyone benefits. It does not take much imagination to think of other ways that peer review can aid all of us, public and medical profession alike.

Joseph H. Skom, M.D.

Joseph H. Skom, M.D.

*THE ACQUISITIVE SOCIETY (1921)

Doctor's News

SUPREME COURT THROWS OUT MALPRACTICE LEGISLATION—In a sweeping decision, the Illinois State Supreme Court declared S.B. 1024, the ISMS/IHA malpractice bill passed last year, unconstitutional. The Court decision came May 14, almost four months after oral arguments were heard in Chicago.

Specifically, this decision upholds an earlier decision of a Cook County Circuit Court which declared the following sections of the bill unconstitutional:

- The \$500,000 maximum award limitation.
- The pre-trial screening panels designed to weed out nuisance suits.
- The rate review provision for insurance companies writing medical malpractice coverage.

Left untouched by the decision is the reduction in the statute of limitations for malpractice suits which was successfully altered to read *2 years after discovery* of an alleged act of malpractice but no more than *5 years after the occurrence* of the alleged act.

ISMS President Joseph Skom, M.D., said, "ISMS is deeply disappointed by the Supreme Court decision. We regret that fine distinctions of constitutional law led to this decision, however, it underscores the absolute necessity of passing the new legislative package developed by the Task Force on Professional Liability. *I urge all Illinois physicians to re-double their efforts in contacting legislators in support of our package.*

LICENSE RENEWAL TIME—In April, license renewal forms were sent to physicians by the Department of Registration and Education. Expiration of current licenses is June 30, 1976. A spokesperson for R&E has indicated that many renewal forms have been returned by the Postal Service. Physicians who have not received a renewal form should make immediate inquiry of the Medical Licensure Section, Department of Registration and Education, 628 East Adams Street, Springfield 62786.

HAS MY PATIENT RIPPED YOU OFF LATELY? This is the title of an article which appeared in the December 22, 1975, *Medical Economics*. The patient is a man who presents himself with all the symptoms of a bleeding ulcer. He has had to de-plane while traveling on business and all his luggage has been left on the plane. The doctor whom this man chooses to see is told that a Dr. Brown in San Francisco recommended him. The serious symptoms which this man describes causes the physician to immediately hospitalize the patient. But first the man asks to cash a check, usually for about \$200, so he can pick up a few items before entering the hospital. Then the physician never see him again.

This man has used this tactic on at least a dozen unsuspecting physicians in several cities. There is reason to believe he is now in the Chicago area. If any doctor is suspicious, he should immediately contact S. A. Harford, Special Agent in Charge, FBI, 219 S. Dearborn, Room 905, Chicago 60604.

PHYSICIANS IN THE NEWS—**J. Ernest Breed, M.D.**, Chicago, Past President of the Illinois State Medical Society, was elected 3rd Vice-President of the Radiological Society of North America at its Annual Meeting in Chicago. The Radiological Society of North America is the largest radiologic society in the world. 11,000 members and guests attended the meeting in McCormick Place. Another Past President, **Fredric D. Lake, M.D.**, Evanston, became chairman of the Board of Chancellors of the American College of Radiology recently at its annual meeting in Washington, D.C. Dr. Lake served the past year as vice chairman of the ACR Board, which represents more than 14,000 physicians. He was the founding president of the Illinois chapter of the ACR in 1965. Dr. Lake also is a member of the Illinois State Advisory Hospital Council, chairman of the ISMS Task Force on Professional Liability, and a former director of the Illinois Foundation for Medical Care.

Edward W. Cannady, M.D., Belleville, has received the first Metropolitan St. Louis Geriatric Award, a plaque and \$1000. The award, sponsored by Medigroup, Inc., is given to a physician in the metropolitan area of St. Louis who, by dedication and service, has contributed most significantly to the alleviation of problems related to aging. Also honored this past month was **Carl A. Hedberg, M.D.**, Chicago, who celebrated his 50th Anniversary as a member of the Medical Staff of Augustana Hospital and Health Care Center. Dr. Hedberg began his affiliation with Augustana Hospital in 1926, as an intern and resident. He has been Chairman of the Department of Medicine since 1941, and is a faculty member of Northwestern University School of Medicine. Dr. Hedberg publicly celebrated this occasion with his family, friends, colleagues and patients at a reception and dinner.

Philip G. Thomsen, M.D., Dolton, attended the World Health Organization's annual meeting in Geneva, Switzerland, in May. Dr. Thomsen was the only delegate of the three-member United States delegation to be chosen by President Ford. The other delegates to the international health summit meeting were Dr. Theodore Cooper, assistant secretary for health of the federal Department of HEW, and Robert Andrews, a U.S. State Department official. Dr. Thompson has held numerous leadership posts in the Illinois State Medical Society and American Medical Association.

New appointments this past month include **Richard S. Wilbur, M.D.**, who was named executive vice president of the Council of Medical Specialty Societies. Dr. Wilbur will be the first chief executive officer of the CMSS, which represents 190,000 physicians in 20 specialty societies. At the American Medical Association, **Richard J. Jones, M.D.** has been appointed director of the AMA Division of Scientific Activities, and **William R. Barclay, M.D.** has been named editor of *Jama* and group vice-president for AMA scientific publications. At the Illinois Department of Registration and Education, **John M. Fultz, Jr., M.D.**, has been appointed medical coordinator. In this position, Dr. Fultz will be the chief enforcement officer of the Illinois Medical Disciplinary Board.

A non-physician has been elected chairman of IMPAC. She is **Mrs. Pam Taylor**, wife of Allan Taylor, M.D. Mrs. Taylor is a 14-year veteran of the Illinois Medical Political Action Committee Board.

1976 Convention Summary



New Officers and Trustees

Highlights of Convention '76

Summary of House Actions



Illinois State Medical Society

1976-77 Officers and Board of Trustees

Officers

PRESIDENT	Joseph Skom, 707 N. Fairbanks Court, Chicago 60611
PRESIDENT-ELECT	George Wilkins, 3165 Myrtle, Granite City 62040
1st VICE PRES.	David S. Fox, 826 E. 61st St., Chicago 60637
2nd VICE PRES.	Theodore Grevas, 2701 17th St., Rock Island 61201
SEC.-TREAS.	Jacob E. Reisch, 1129 S. 2nd Street, Springfield 62704
CHAIRMAN, BOARD OF TRUSTEES	Robert T. Fox, 2136 Robincrest, Glenview 60025

House of Delegates

SPEAKER	James A. McDonald, 515 Oakwood Dr., Geneva 60134
VICE-SPEAKER	Cyril C. Wiggishoff, 25 E. Washington, Suite 1805, Chicago 60602

Trustees

1st District	1977	Joseph L. Bordenave, 415 E. 2nd, Geneva 60134
1A District	1977	P. John Seward, 1601 Parkview, Rockford 61107
2nd District	1977	Allan L. Goslin, 712 N. Bloomington, Streator 61364
3rd District	1979	Alfred Clementi, 675 W. Central Rd., Arlington Heights 60005
	1979	Robert T. Fox, 2136 Robincrest, Glenview 60025
	1978	Henrietta Herbolsheimer, 5528 S. Hyde Park Blvd., Apt. 1202, Chicago 60637
	1978	Lawrence L. Hirsch, 2434 Grace, Chicago 60618
	1978	Eugene T. Hoban, 6429 North Ave., Oak Park 60302
	1977	William M. Lees, 6518 N. Nokomis, Lincolnwood 60646
	1977	Joseph C. Sherrick, 303 E. Superior, Chicago 60611
	1977	Philip G. Thomsen, 13826 Lincoln, Dolton 60419
	1979	Herman Wing, 400 E. Randolph, Chicago 60601
		Vacancy—to be filled at later date
4th District	1979	Fred Z. White, 723 N. 2nd St., Chillicothe 61523
5th District	1979	Paul F. Mahon, 326 N. 7th St., Springfield 62702
6th District	1978	Robert R. Hartman, 1515 A. W. Walnut, Jacksonville 62650
7th District	1979	Alfred J. Kiessel, 1800 E. Lake Shore Dr., Decatur 62521
8th District	1979	James Laidlaw, 104 W. Clark, Champaign 61820
9th District	1978	Warren D. Tuttle, 203 N. Vine St., Harrisburg 62946
10th District	1978	Julian W. Buser, 6600 W. Main, Belleville 62223
11th District	1977	Ross N. Hutchison, 126 E. 9th St., Gibson City 60936

Trustee-at-Large

J. M. Ingalls, 502 Shaw Ave., Paris 61944

Highlights of Convention '76

A total of 618 physicians, medical students, housestaff, guests and allied health personnel attended the 136th Annual Meeting of the Illinois State Medical Society, at the Palmer House, Chicago, April 25-28, 1976. Physicians attended scientific lectures sponsored by several Illinois medical specialty societies and two open forums, one pertaining to Illinois Foundation for Medical Care negotiating activities and a second about the new physician owned insurance exchange. ISMS members also participated in House of Delegates sessions where resolutions about various issues were considered.

Attendance at the 1976 assembly of the ISMS House of Delegates was recorded by the Credentials Committee as follows:

	Officers & Trustees	Speaker & Vice-Speaker	Downstate Delegates	CMS Delegates	Students	Housestaff	TOTAL
First Session							
43 counties	19	2	66	93	1	1	182
Second Session							
60 counties	21	2	80	77	1	1	182
Third Session							
54 counties	23	2	79	80	1	1	186

The first session convened at 2:30 p.m., Sunday, April 25. Dr. Jacob E. Reisch, ISMS Secretary-Treasurer, conducted a memorial service to honor the 150 physician members of ISMS who departed during the past year.

Auxiliary Achievements

Mrs. Millie Vickery, ISMS Auxiliary President, was introduced to the First Session of the House by her husband, Dr. Eugene Vickery, who described her many accomplishments professionally and as a community leader.

Mrs. Vickery expressed sincere thanks to the physicians for not only their financial support, but also for moral support and belief in the Auxiliary's endeavors. She reminded the doctors about the Auxiliary's name change, which had necessitated a new logo and president's pin. A new "Auxiliary Volunteer" embroidered patch also was designed this year to quietly let communities know that the Auxiliary is working for and helping others. For the first time, the Auxiliary presented a specially designed pin for county Auxiliary presidents in counties that have been organized at least 25 years. One gold pin for the county Auxiliary in existence fifty years also was awarded.

Several new activities were instituted this year, including a fall conference held in Springfield and three district meeting workshops conducted in more distant locations. All were well attended.

The Auxiliary continued to be active in the fields of community health and safety, health education, legislation and public affairs, stated Mrs. Vickery. Over 6000 posters on food choking, demonstrating the Heimlich maneuver, were distributed throughout the state, to schools, res-



Mrs. Vickery addresses the opening session of the House of Delegates.

taurants, nursing homes, and so on. Folders entitled "Is He Sick . . . Should I Send Him to School?" for parents of school age children also have been distributed. She noted that the Auxiliary has been very successful in raising over \$20,000 for AMA-ERF, as well as \$12,000 in funds for nursing schools, the past year. In conclusion, Mrs. Vickery extended special thanks to the ISMS Advisory Committee to the Auxiliary.

Education Key Word for Medical Assistants

Magda Brown, President of the Illinois Society, American Association of Medical Assistants, speaking before the House of Delegates at its opening session, expressed her earnest thanks to the doctors for support and encouragement of the medical assistant's program. Since the Illinois Society, AAMA, was formed twenty years ago, the practice of medicine has changed immensely, stated Mrs. Brown, and so have the duties of the medical assistant.



AAMA, Illinois Society President Magda Brown.

Therefore, the need for continuing education

has become increasingly necessary. This is one of the primary goals of the Illinois Society. With physicians' cooperation, the Illinois Society has conducted a wide range of educational programs during the past year dealing with health care regulations, medical ethics, and all aspects of patient care.

As a culmination of the Illinois Society's efforts, Mrs. Brown was proud to announce that they will be the host for the AAMA's National Convention this September in Chicago. In closing she stated, "It was through the needs of yesterday that our organization was founded but it is in meeting the needs of today that our society continues to grow."

AMA-ERF Check Presented

Dr. J. M. Ingalls, ISMS President, and Mrs. Millie Vickery, ISMS Auxiliary President, presented a \$149,759.50 check from the American Medical Association Education and Research Foundation to Dr. Bernard Sigel, Dean of the Abraham Lincoln School of Medicine, representing the Illinois Council of Medical School Deans. Prior to the presentation, Dr. Ingalls announced that contributions to the AMA-ERF medical school fund in 1975 totaled \$1,274,999.83, with the American Medical Association Auxiliary contributing over \$755,986 of the total.



A \$149,759 check from AMA-ERF is presented by Dr. Ingalls and Mrs. Vickery.

The \$149,759 will be distributed among Illinois medical schools as follows:

Rush Medical College	\$14,089.73
University of Chicago Pritzker School of Medicine	\$14,093.65

Northwestern University Medical School	\$32,779.95
University of Illinois College of Medicine Foundation	\$14,601.60
Chicago Medical School	\$20,109.70
Stritch School of Medicine, Loyola University	\$23,254.14
Southern Illinois University School of Medicine Foundation	\$9,269.73
Southern Illinois University Foundation/Carbondale	\$27.00
University of Illinois Foundation, Abraham Lincoln Campus	\$12,026.83
University of Illinois Foundation/Champaign	\$1,537.50
University of Illinois Foundation/Metro Campus	\$475.00
University of Illinois, Rockford School of Medicine Foundation	\$460.00
University of Illinois, Peoria School of Medicine Foundation	\$7,034.67

Hamilton Teaching Award

Dr. Elizabeth McGrew, chief pathologist at the University of Illinois Medical Center, was hon-



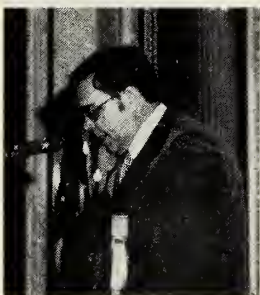
Dr. McGrew received the Hamilton Teaching Award of the IPMANA from Dr. Fred White.

ored during the First session of the House, for her outstanding contributions to medical education. She was elected the recipient of the 1976 Edwin S. Hamilton Interstate Postgraduate Medical Teaching Award. In 1975, Dr. McGrew was named "Faculty Member of the Year" by the University of Illinois College of Medicine. She has been the acting head of the Department of Pathology at the medical school since 1973. A graduate of the University of Minnesota Medical School, Dr. McGrew interned at Milwaukee County Hospital. She was a resident in pathology

at the Research and Education Hospitals in Chicago and is a member of the American Board of Pathology.

The Edwin S. Hamilton Award is named for the Kankakee physician and former ISMS President in recognition of his long service to the Interstate Postgraduate Medical Association of North America (IPMANA). The honor, which includes a \$500 award, is sponsored by the IPMANA. The ISMS Council on Education and Manpower elects the annual winner from nominations made by members of the Council, which includes deans of Illinois medical schools.

IMPAC Salutes Participation



IMPAC President George Wilkins, M.D., reports.

George T. Wilkins, M.D., President of the Illinois Medical Political Action Committee, saluted the active participation of Illinois physicians in public affairs. He pointed out the significance of increased membership in IMPAC during the past year, one of the worst periods of

political distrust in history. He also cited reasons for pride in continued physician success in the midst of such cynicism.

Dr. Wilkins challenged present members of IMPAC to motivate and direct their colleagues, so that IMPAC can achieve 100% participation in 1976. Physicians must mobilize now, and help inject new life into the system. It is the peoples' responsibility, he insisted, to maintain the freedom of private initiative and the pursuit of excellence.

Dr. Wilkins concluded that politics is not something to avoid, abolish, or destroy. Rather it is a condition to live with and control. "We must master its ways or we'll be mastered by those who do."

IFMC Activities Reported



IFMC activities noted by Dr. Allan Goslin, IFMC President.

The annual report of the Illinois Foundation for Medical Care was presented to the assembly by Allan L. Goslin, M.D., President of IFMC. He reported that IFMC has initiated a program to assist individual physicians of ISMS in regard to reimbursement problems they may have with

the Illinois Department of Public Aid, as directed

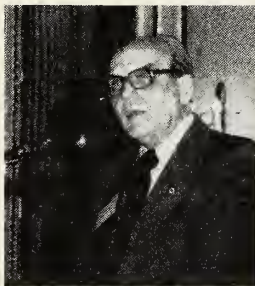
at the November, 1975, House of Delegates Special Session.

Dr. Goslin further informed the House of Delegates about two other developments of importance. On April 19, 1976, Mr. James Trainor, Director of the Illinois Department of Public Aid, met with IFMC representatives to discuss IFMC's suggestion that IDPA utilize the IFMC pre-payment Medicaid ambulatory care peer review program, rather than the post-payment review system currently used by the Department. The meeting was favorable, stated Dr. Goslin. Mr. Trainor agreed to conduct an in-depth study and evaluation of the IFMC program and to utilize such if it is determined to be capable of responding to the Medicaid review requirements at a reasonable cost. The director also agreed to enter into concurrent Medicaid fee discussions at that time.

Another important recent action concerned an agreement between IFMC and IHA to support a single statewide system of in-hospital patient care review. The concept given the greatest consideration would use HASP as the basic review system, provided a delegation of review concept (for qualified hospitals) is incorporated, said Dr. Goslin. This modified HASP would be called PEERS.

Executive Administrator Cites ISMS Achievements

ISMS Executive Administrator, Roger N. White, expressed thanks and appreciation to a dedicated staff, the officers and other leaders of the society, in his report to the House of Delegates.



ISMS Executive Administrator Roger N. White.

"Last year I predicted that we could cope with added intrusion of governmental regulations into the practice of medicine," stated Mr. White. "To be sure we have not halted the process, . . . We have succeeded in pushing the bureaucracy back when they have overstepped the line between

public accountability and unwarranted interference in the care of patients. This year, for the first time, we had to resort to legal actions, when the Department of Public Aid refused to act in a reasonable manner with respect to reporting ownership interests in health care facilities providing Medicaid services. Unreasonable demands for information about income and

other confidential matters had no bearing on the issue." Mr. White reported that a similar situation may be developing with the Department of Registration and Education over requirements for reporting malpractice suits on license renewal forms.

Other accomplishments of the past year about which Mr. White spoke included the execution of a contract with IFMC to resolve problems with Medicaid reimbursement and establishment of a physician-owned carrier to write professional liability insurance. The Task Force on Professional Liability also has continued to work throughout the year to develop legislation concerned with tort law reform and the improvement of the insurance mechanism, and to foster public awareness of the fact that the liability problem is not confined to physicians alone.

AMA Delegation Introduced

Edward A. Piszczek, M.D., Chairman of the ISMS delegation to the American Medical Association, introduced the AMA delegates and alternates with a note of appreciation for their services during the past year.

Those who served as delegates since the last annual meeting included: Drs. Howard C. Burkhead, Carl E. Clark, Alfred J. Faber, Jack L. Gibbs, Theodore Grevas, H. Close Hesseltine, Maurice M. Hoeltgen, William M. Lees, Morgan M. Meyer, John Ring, Fred A. Tworoger, and Charles K. Wells.

Alternate delegates were: Drs. Herschel Browns, Allison Burdick, Jr., David S. Fox, Lawrence L. Hirsch, J. M. Ingalls, Robert P. Johnson, Fredric D. Lake, Eugene T. Leonard, Joseph R. O'Donnell, George Shropshire, Glen Tomlinson, Theodore Van Dellen, and George T. Wilkins.

Presidential Report

J. M. Ingalls, M.D., ISMS President, addressing the First Session of the ISMS House of Delegates, thanked all county medical societies for allowing him the privilege of visiting their individual meetings this past year, and expressed his appreciation to the officers and staff of ISMS. Dr. Ingalls also recognized the ground work laid by Fredric D. Lake, M.D., and all other past presidents, stating that he hoped he had accomplished as much in making his successor's job easier. Dr. Ingalls also thanked the ISMS Auxiliary and the medical assistants of the Illinois Society for their efforts on behalf of physicians.



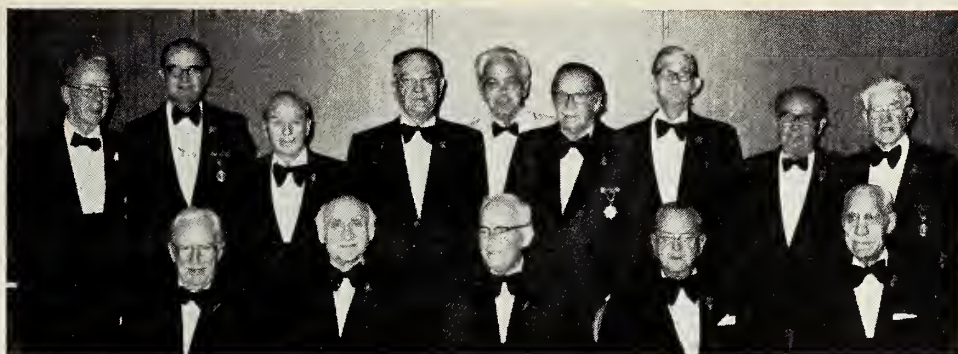
Dr. J. M. Ingalls gives the annual presidential address and challenges the membership to increase personal involvement.

Dr. Ingalls went on to indicate the important attitudinal changes which he felt had evolved during the past year. He called particular attention to the aggressive stand taken by the Society. Specific incidents were dealt with in an active, proper, and forthright manner in order to bring about positive solutions, stated Dr. Ingalls. But he pointed out, there still are many negatives about which physicians must be concerned. "It is a sad state of affairs when we find ourselves in such straights that we must develop our own insurance company and a Task Force on Professional Liability to deal with these problems," he observed. "However, the constitutionality of some laws must be challenged, to preserve medical care as we know it today."

As the underlying theme of his report, Dr. Ingalls stressed the importance of participation by all members. Each individual physician must take on the task of influencing government. If practicing physicians do not accept this responsibility, necessary modifications in the system will not be made, charged the President. "Don't let change be the result of political games."

Physicians must educate their patients, continued Dr. Ingalls. He particularly emphasized decision making by individuals, not computers, groups, or others. "We have to move forward positively," concluded Dr. Ingalls. "I have attempted to represent the Society vigorously, actively, positively and proudly this year. I only hope that the groundwork I have laid will be as beneficial to the next president as that left me by Dr. Lake."

Past Presidents Get Together



On the eve of the ISMS Annual Meeting, Past Presidents gathered for a gourmet dinner at the Ninety-Fifth Restaurant atop the John Hancock Building. The past presidents paid tribute to Fredric D. Lake, Immediate Past President. Willard C. Scrivner, M.D., served as Master-of-Ceremonies.

Seated from left Drs. Leo P. A. Sweeney, Caesar Portes, E. P. Coleman, Burtis Montgomery, H. Close Hessel-tine; standing are Drs. Fredric Lake, C. J. Jannings, III, Willard C. Scrivner, Edward Piszczek, Harlan English, Newton DuPuy, host Jacob E. Reisch, Philip G. Thomsen and J. Ernest Breed.

Fifty Year Club Gathers for Annual Luncheon

The annual luncheon of the Fifty Year Club honored 96 newcomers to this elite group. Dr. Eli Borkon presided over the event, which was attended by over 125 physicians and their wives. Dr. William E. O'Brien, Chairman of the Department of Recreation at Southern Illinois University, spoke about "Officiating in the National Football League." He related several humorous anecdotes about his experiences as a NFL official. After Dr. O'Brien's talk, plaques and pins were presented to the freshman members of the Fifty Year Club by Dr. Borkon. These physicians are ISMS members who began the practice of medicine fifty years ago. Special pins also were presented to those physicians who had practiced medicine for sixty years. The oldest physician present had graduated from medical school in 1909.

Certificates of CME Accreditation Presented

Dr. Joseph Bordenave, Chairman of the Board of Trustees presented nine AMA Certificates of Accreditation in Continuing Medical Education during the second session of the ISMS House of Delegates. These were given to institutions which met the AMA continuing education requirements as recommended by examiners from the Illinois Council on Continuing Medical Education and approved by the ISMS Accreditation Committee. Now that mandatory continuing medical education is the law in Illinois and physicians may

have to present evidence of participating in such programs to renew their licenses. Dr. Bordenave was particularly pleased to present certificates to: Manteno State Hospital, Manteno; Skokie Valley Community Hospital, Skokie; Central DuPage Hospital, Winfield; Carle Foundation Hospital, Urbana; Chicago Read Mental Health Center, Chicago; FAB³ (a consortium of five Chicago hospitals: Forkosh Memorial, Thorek Medical Center, Bethesda, Bethany Methodist, and Belmont Community); Lutheran General Hospital, Park Ridge; North Shore Mental Health Association; Irene Josselyn Clinic, Northfield; and Methodist Medical Center of Illinois, Peoria.



Recipients of CME Accreditation Certificates with Dr. Bordenave.

Thompson Speaks at Public Affairs Breakfast

Early Tuesday morning a breakfast sponsored by the Public Affairs Committee featured James R. Thompson, Republican candidate for Gov-



ernor. Mr. Thompson, speaking before an overflow crowd, indicated his belief that renewed leadership is needed throughout state government, particularly in the area of health care as exemplified by the continuing malpractice crisis. "We

all recognize that the ISMS malpractice bill is only a stopgap measure," stated Thompson. He addressed his remarks further to the multiple problems of malpractice claims and the proliferation of lawsuits which are effecting every aspect of health care and society. He stated that not only is it the physician's responsibility to educate patients about the limits of medicine, but that the state also must be responsible for implementation of the new medical disciplinary program and the establishment of requirements regarding insurance carriers. Mr. Thompson also addressed the problems with payment policies of the Department of Public Aid.

Thompson concluded with an indication that as Governor of Illinois, he would work to provide for the interests of the public first, through the open consultation and mutual assistance of all. "Health care will improve, but only through the help, cooperation, time and energy of all groups involved."

Gala President's Night

On Monday evening, President J. M. Ingalls, M.D., was honored at the Annual President's Night Dinner-Dance, held in the Red Lacquer Ballroom of the Palmer House. Dr. Fred Z. White served as M.C. for this gala affair. Those who attended were entertained after dinner by Dave Major and the Minors, a five man, twenty instrument show band.

J. M. Ingalls Honored

Dr. J. M. Ingalls was honored at the closing of the Third Session of the ISMS House with several presentations. Traditionally, each president is presented with a scrapbook of clippings from his year in office. However, this year Mack W. Hollowell, M.D., Chairman of the Council on Public Relations and Membership Services, pre-

sented Dr. Ingalls with a four volume scrapbook. Dr. Hollowell commented that the column inches of print contained in Dr. Ingalls scrapbook equalled 96 meters, which is just over the length of a football field. Ingalls replied, "I've often heard how high you can stack it, but this is the first time I've seen it measured longitudinally." Jacob E. Reisch, M.D., ISMS Secretary-Treasurer, presented Dr. Ingalls with a plaque and a certificate of appreciation to express the society's gratitude for his strong and able leadership during the past year.

Dr. Joseph Skom Inducted President

In his inaugural speech as ISMS President, Joseph H. Skom, M.D., jested that a physician who isn't paranoid is crazy, because he's out of touch with what is going on around him. More



Dr. Skom receives the oath of office from Dr. Ingalls.

seriously, Dr. Skom praised Dr. Ingalls, the Task Force, and the Board of Trustees, for diligent work the past year. The position of the President as spokesman for the society, he stated, is to be responsible for and explain all stands of the society. In this

position, Dr. Skom intends to emphasize what the society has done and to show that ISMS is not solely a self-interest organization. He plans to remind the public that ISMS had the first council on continuing medical education, that Illinois physicians promoted the Medical Disciplinary Board, and have shown concern for the moral and physical integrity of government.

Dr. Skom indicated that the idea of doctors being regulated by nondoctors is unfair. "Others have the right to be judged by their peers, why shouldn't doctors?" he asked. Dr. Skom expressed dislike for the term "providers" to identify physicians. "We are not providers, vendors, or consumers, but patients and physicians," he declared.

This year Dr. Skom will work with the members of the President's Inter-Caucus Committee who will be: Drs. P. J. Seward, David Fox, Eugene Johnson, Alfred Faber, Fred Z. White and Herschel Browns.



At the post-convention meeting of the Board of Trustees the gavel of the Chairman of the Board is passed from **Dr. Joseph L. Bordenave** to **Dr. Robert Fox**, the new Chairman of the Board.

Special Forums Further Physicians' Education

Several open conferences were held during the Annual Meeting. On Monday, April 26, the Committee on Alcoholism and Drug Dependence sponsored a full morning of lectures and discussions about "Alcoholism and the New Law." The first speaker on the agenda was LeRoy Levitt, M.D., Director of the Department of Mental Health and Developmental Disabilities. He spoke about that Department's responsibilities in implementing the new law which takes alcoholism and alcohol abuse out of the criminal justice system and puts it into the medical milieu.

Other topics presented were: "The Treatment of Acute Alcoholism," discussed by James W. West, M.D., Director of Alcoholism Services, Little Company of Mary Hospital, and Assistant Professor, Department of Psychiatry, Rush Medical College. Dr. West also was the Program Chairman for this meeting. Charles Whitfield, M.D., Chairman of the Illinois Chapter, American Medical Society on Alcoholism and Assistant Professor, Department of Medicine, Southern Illinois University School of Medicine, talked about "Medical Complications of Alcoholism." Maxwell N. Weisman, M.D., Director of the Division of Alcoholism Control, Maryland, told

"How Maryland Has Implemented the Alcoholism Law."

The Illinois Society of Internal Medicine held an open meeting the same day with a symposium entitled "The Role of the General Internist: The New Religion." Participants included Dr. William Buckingham, Northwestern University, moderator; and Drs. Armand Littman, Hines V.A.; William Troyer, University of Illinois and Alvin Tarlov, University of Chicago.

Also on Monday was a seminar sponsored by the Illinois Chapter, American College of Emergency Physicians. Topics discussed were: "Protocol for the Treatment of Rape," "Carbon Monoxide Poisoning," "Anaerobes and the Abscess," "Hypovolemic Shock," "Post Traumatic Pulmonary Insufficiency," and "Pericardiocentesis and Pericardial Tamponade."

Two special open forums also were conducted on Monday. The first dealt with IFMC's negotiating activities with IDPA. This was presented in an attempt to keep physician members abreast of Foundation activities with regard to Medicaid reimbursement. The second forum, led by ISMS President, J. M. Ingalls, M.D., informed physicians about the new physician-owned insurance company. There was a slide presentation about the new company with a question and answers session following. Roger N. White, ISMS Executive Administrator, Joseph L. Bordenave, M.D., Chairman of the Board of Trustees, John Norris, American Health Systems consultant, as well as Dr. Ingalls, were present to respond to questions and to provide an in-depth overview.

On Tuesday, April 27, a Physical Medicine and Rehabilitation meeting, a workshop on how to achieve accreditation for hospital CME programs, sponsored by the Illinois Council on Continuing Medical Education, and scientific meetings of the Illinois Society of Pathologists and the Illinois Chapter, American Academy of Pediatrics were held. Topics of the latter meeting included "Stabilization of the High-Risk Newborn," "Chronic Diarrhea—Evaluation and Treatment," "Present Status of Antibiotic Therapy in Childhood," and "Trauma in Childhood."

Summary of Actions

1976 House of Delegates

AMENDMENTS TO CONSTITUTION AND BYLAWS

The House amended the bylaws to:

- A. Allow Illinois residents enrolled in approved medical schools within the territories of the United States to become student members of ISMS.
- B. Delineate the responsibility of the AMA delegation for carrying out policies of the ISMS House of Delegates and for forwarding them to the AMA when appropriate.
- C. Name the chairman of the AMA delegation an ex officio member of the Board of Trustees and Executive Committee without vote.
- D. Remove reference to the "geographical map of the state approved in May, 1946" so that trustee districts can be altered without further amending the bylaws.
- E. Name the Speaker of the House as one of the five Board members constituting the Committee on Constitution and Bylaws.
- F. Provide membership to physicians who practice principally in Illinois although they are not residents of the state.
- G. Include sex as one of the criteria on which membership cannot be denied.
- H. Provide that, unless specifically indicated as voluntary, any assessment passed by the House shall be considered a part of a member's dues.
- I. Provide for an interim meeting of the House of Delegates to be held in a district other than where the annual meeting is held.

The House also amended the Constitution to remove the requirement that general scientific meetings be held in conjunction with the annual business meeting of the House of Delegates.

It directed the AMA delegation to submit resolutions to the AMA urging vigorous action

against the undue intrusion by various governmental agencies into the practice of medicine, require the AMA to provide specific benefits to unified membership states, and develop programs to counteract strong anti-AMA feelings of grass roots members.

The House recommended that the Board of Trustees consider removing residence and practice location restrictions from membership qualifications and to warn county medical societies not to hold or mingle political action funds with dues money but to forward such funds to the proper agency at regular and frequent intervals.

Rejected were proposals to (1) allow tape recordings to be used in lieu of stenographic records in ethical relations cases; (2) abolish the Council on Affiliate Societies; (3) change the date on which component societies are required to forward dues to ISMS, and (4) eliminate unified membership with the AMA.

A. REPORTS OF OFFICERS AND ADMINISTRATION

The House adopted the following positions regarding operation of the AMA delegation:

1. Selection and/or endorsement of ISMS candidates for positions on AMA Board, councils and committees should be submitted by the delegation after consultation with the ISMS Board of Trustees or its Executive Committee.
2. AMA delegates should almost without exception be elected from those having served first as alternate delegates.

First steps were taken toward creating an intern/resident business session and a medical student business session when the House adopted the concept and ordered bylaws revisions to provide for their establishment.

The House approved transferring Alexander, Jackson, Pulaski and Union counties from the Tenth Trustee District to the Ninth District.

The House rejected a proposal to poll the membership regarding its use of factoring companies for reimbursement of public aid fees be-

cause the Board of Trustees earlier had indicated that "if the Attorney General informs ISMS (that) . . . he believes the information obtained in a factoring company questionnaire would benefit his investigation (into factoring companies), ISMS will utilize Action Report or a similar publication to solicit those members willing to furnish information regarding their use."

B. ECONOMICS, PEER REVIEW, SOCIAL AND MEDICAL SERVICES

Noting that the AMA Council on Medical Service has established liaison with the Department of Health, Education and Welfare staff in the Office of Quality Assurance, the Bureau of Quality Assurance, and the Bureau of Health Insurance to insure good quality medical care under the PSRO law, ISMS will submit resolutions to the AMA requesting its Council on Medical Service to:

1. Establish an ad hoc committee to parallel the present liaison committee in order to represent all physicians in offering formation of one or more PSROs in those states where it is feasible.
2. Identify all necessary and desirable amendments to the PSRO law, publicize them in official AMA publications, and present to the membership, at intervals during the next two years, progress reports regarding each proposed amendment.

The House also directed that:

1. "The Minimum Standards for Health Insurance Programs," as endorsed by the Boards of ISMS and the Illinois Foundation for Medical Care, be promptly modified so that usual, customary and reasonable fee concepts apply to physician-performed procedures for psychiatric illness.
2. The Illinois Department of Public Aid be urged to work more closely with ISMS and medical schools in developing regulations covering payment for services of salaried teaching physicians which recognize and account for the various modes of practice essential to the expansion of medical education in community settings which do not create artificial distinctions between the services of community and university based faculty.

3. The AMA be urged to take steps to abolish the discriminatory reimbursement practices of the Social Security Administration in connection with utilization review of Medicare patients.
4. Member physicians be urged to bill their CHAMPUS patients directly and explain to them that they are being forced to direct bill by the unfair, unilateral action of the Department of Defense, and that the AMA be urged to negotiate with the Department a "no rollback" of CHAMPUS fees below 1975 levels and maintain usual and customary fees in the future.
5. The Board of Trustees empower an existing committee and/or the IFMC to investigate fully the audit procedures of the Illinois Department of Public Aid and that progress reports be made at each meeting of the House of Delegates.
6. Development and/or publication of an Illinois Relative Value Study be deferred pending resolution of present litigation challenging the legality of an RVS and that the Board of Trustees be kept informed of the status of such litigation.

Rejected were proposals to have the medical profession disavow endorsement of Blue Shield coverage and to update RVS immediately.

C. EDUCATION AND MANPOWER

The House took the following actions:

1. Endorsed the need to develop mechanisms of licensure without requiring additional training or examination for physicians licensed in other states, territories, countries or provinces who have been employed as full-time ranked faculty members in an Illinois school of medicine or osteopathy.
2. Directed staff and appropriate council to monitor the development of these mechanisms by communication with the Department of Registration and Education and/or the legislative and judicial branches of the state.
3. Directed the Council on Education and Manpower to review any proposals rela-

tive to changing the Medical Practice Act and transmit its findings and recommendations to the Board of Trustees.

D. ENVIRONMENTAL, COMMUNITY AND MENTAL HEALTH

The House adopted the following positions:

1. Clinical electromyoneurographic procedures and examinations which inherently involve medical interpretations, descriptions of findings, and rendering of diagnostic opinions should be performed only by physicians licensed to practice medicine in all its branches and trained in these procedures. The state board of medical licensure should be requested to investigate and take appropriate action in all cases involving the performance of electromyoneurographic examinations by unauthorized persons and not in conformance with the Medical Practice Act. This policy will be forwarded to the AMA in resolution form.
2. The Illinois Department of Public Health, as well as individual county public health departments, should cease and desist all drug dispensing and distribution programs which are not directly supervised by a physician licensed to practice medicine in all its branches. The Department will be reminded that prescription drugs may be dispensed only upon the authorization of such physicians.
3. Component medical societies should be consulted by health departments in any mass immunization campaign to be implemented. In counties where there is no health department, IDPH should contact the component medical society or local physicians for coordination of the program; IDPH or ISMS should institute whatever is necessary—including appropriate state indemnification or “exemption from liability” legislation—to assume or alter the liability responsibility during any mass immunization program. In the event private facilities are utilized, normal reimbursement procedures may be employed; however, the facility should not charge for the cost of the vaccine because the vaccine is paid for by the federal government.

E. FINANCES, BUDGETS AND PUBLICATIONS

The House continued funding of the Illinois Council on Continuing Medical Education by allocating half (\$10) of each member's 1977 AMA-ERF dues.

It also continued the one dollar per member assessment to support activities of medical students and interns/residents. The assessment will be made annually for five years or until it is no longer needed.

Dues for 1977 were again fixed at \$130 plus the one dollar assessment.

F. GOVERNMENTAL AFFAIRS AND MEDICAL LEGAL

The House adopted the following positions:

1. Only physicians licensed to practice medicine and surgery in all its branches are qualified to prescribe or use eye medications and only such physicians should continue to be the primary entry-point for eye care. ISMS will vigorously oppose any legislative or administrative attempt in Illinois to give optometrists a license to prescribe or use medications or to serve as a primary entry-point in the provision of eye services. The Illinois delegation to the AMA is instructed to present a specific and comparable resolution for consideration by the forthcoming AMA house of Delegates.
2. ISMS continues to discourage the use of marijuana. Legalization of the possession or use of marijuana was not endorsed. Since medical and psychiatric knowledge concerning the short-term and long-term effect of cannabis is very limited, the House believes medical research should be supported by public and private resources of the state.
3. ISMS will protect the interests of its members by encouraging the provision of a guarantee of due process in the bylaws of the new Illinois State Medical Inter-Insurance Exchange.
4. ISMS encourages legislation requiring fiscal notes as part of every federal and state health program.
5. Any legislation which proposes statutory restrictions that may intrude into the

relationship of the physician and his patient—and which may interfere with the physician's ability to use his best judgment and training in caring for his patient—is not in the best interest of either the patient or the public and will be opposed by ISMS.

6. ISMS will urge the AMA to draft model state bills on voluntary catastrophic insurance for possible use by the states in their own legislatures. These bills should be structured to stimulate the private sector to market voluntary and appropriate catastrophic insurance coverage.
7. ISMS supports any and all efforts to repeal Public Law 93-641 (National Health Planning and Resources Development). Pending repeal, however, ISMS encourages maximal physician participation on HSA boards and the recruitment of informed, knowledgeable providers and consumers on HSA boards.
8. ISMS opposes hospital actions which unilaterally stipulate that professional liability insurance is a pre-requisite for membership on a medical staff. If a hospital proposes to require evidence of professional liability insurance as a condition of membership on a medical staff, such condition should be in accord with rules and requirements as established by the organized medical staff of the hospital in cooperation with the hospital board of trustees. To protect their assets, members of a hospital staff should be assured of the adequacy of professional liability coverage carried by the hospital as a reciprocal disclosure between the staff and hospital.
9. ISMS is opposed to the use of the Social Security number as a universal number identifier and will encourage all county societies, PSROs, hospitals and other providers of medical care to oppose its use for this purpose.
10. ISMS will support the legislative guideline adopted by the American Psychiatric Association—to actively oppose any state or federal legislation which proposes reimbursement under health insurance programs of psychologists, social workers or

any group of individual practitioners without medical supervision.

11. ISMS will vigorously protest the prior approval requirements contained in the utilization review regulations published in preliminary form in the Federal Register. The AMA also will be asked to oppose the prior approval provision of the regulations as published March 30, 1976, and if necessary, to reinstate its lawsuit against HEW.
12. ISMS will not support any legislative proposal which seeks to define death unless it provides that—based upon usual and reasonable standards for medical practice—death has occurred when it is determined by a doctor of medicine that a person has experienced the permanent and irreversible cessation of the integrated function of the respiratory, circulatory and nervous systems, according to the following standards:
 - (a) The irreversible cessation of spontaneous respiratory and circulatory functions.
 - (b) If artificial means of support preclude reliance on item (a), the irreversible cessation of spontaneous brain function, which may be confirmed by a flat (isoelectric) electroencephalographic tracing in the absence of hypothermia and of barbiturates and other central nervous system depressants.

Rejected were proposals to encourage the use of "litigation" instead of "malpractice" and to refer to insurance coverage as "professional liability." A proposal that ISMS publish, once a month, a list of all patients, attorneys or law firms involved in professional liability litigation was referred to the Board of Trustees.

G. PUBLIC RELATIONS, MEMBERSHIP AND MISCELLANEOUS BUSINESS

The House directed the Board of Trustees to utilize various innovative methods in order to ascertain the most effective means of obtaining the opinions of the membership, that periodic opinion polls be conducted on critical basic issues facing the society, and that the AMA be urged to continue its membership opinion polls. ◀

Actions on Resolutions

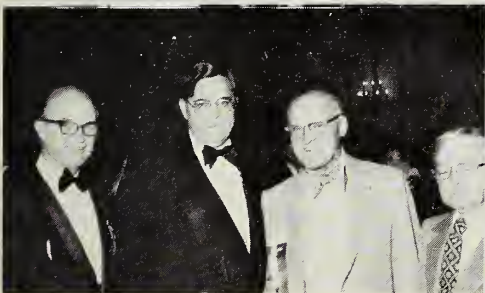
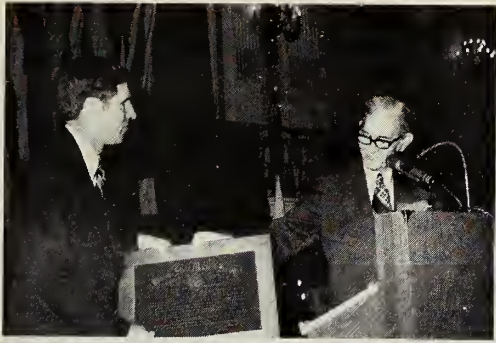
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<i>Number</i>	<i>Introduced By:</i>	<i>Subject</i>	<i>Action</i>
76A-1	William Yasnoff, Student Delegate	Amendment to Chapter I, Section 1H of the Bylaws	Adopted as amended
76A-2	Joseph L. Bordenave	Continued Funding for ICCME	Adopted
76A-3	David S. Helberg	Prescribing Eye Medications	Adopted as amended
76A-4	Fred Z. White	Amendment to Article VIII of the Constitution	Adopted
76A-5	Fred Z. White	Amendment to Chapter VI of the Bylaws	Adopted
76A-6	Fred Z. White	Amendment to Chapter VII of the Bylaws	Adopted
76A-7	Fred Z. White	Amendment to Chapter IX of the Bylaws	Adopted as amended
76A-8	Fred Z. White	Amendment to Chapter I of the Bylaws	Adopted as amended
76A-9	Fred Z. White	Amendment to Chapter II of the Bylaws	Adopted as amended
76A-10	Allan L. Goslin	Selection and/or Endorsement of Candidates for AMA Positions	Adopted as amended
76A-11	Allan L. Goslin	Election of AMA Delegates	Adopted
76A-12	Joseph Skom	Marijuana	Adopted as amended
76A-13	Paul Stromborg	Establishment of Intern-Resident Business Session	Adopted as amended
76A-14	E. K. DuVivier	Malpractice Insurance	Substitute adopted
76A-15	E. K. DuVivier	Bicentennial Resolution	Substitute adopted
76A-16	David S. Fox	House of Delegates Interim Meeting	Adopted
76A-17	Joseph R. O'Donnell	PSRO Participation in Designated Areas	Adopted as editorially changed
76A-18	Joseph R. O'Donnell	PSRO Amendments	Adopted
76A-19	Morgan M. Meyer	Health Insurance Benefits for Psychiatric Illness	Adopted as amended
76A-20	J. P. Campbell	Disavowal of Medical Profession Endorsement of Blue Shield Coverage	Rejected

<i>Number</i>	<i>Introduced By:</i>	<i>Subject</i>	<i>Action</i>
76A-21	William Yasnoff, Student Delegate	Continued Funding for Liaison with Students, Interns and Residents	Adopted as amended
76A-22	William Yasnoff, Student Delegate	Medical Student Business Session	Substitute approved & referred to B of T
76A-23	John W. Ovitz, Jr.	Urging Completion of Illinois State Medical Society Relative Value Study as Directed by 1974 House of Delegates	Rejected
76A-24	Walter P. Plassman	Unified Membership in AMA	Rejected
76A-25	H. Frank Holman	Prolonging Human Life	Substitute adopted as amended
76A-26	Morgan M. Meyer	Public Aid Payment to Salaried Teaching Physicians	Adopted
76A-27	Joseph R. O'Donnell	Malpractice	Rejected
76A-28	Morgan M. Meyer	Catastrophic Health Insurance	Substitute adopted
76A-29	Fred Z. White	Amendment to Chapter IV, Section 9, of the Bylaws	Adopted as amended
76A-30	James W. Sutherland	National Health Planning and Resources Development Act	Substitute adopted as amended
76A-31	Jack Gibbs	Opinion Polls	Substitute adopted as editorially changed
76A-32	Charles J. Janning	Reimbursement of Physicians Performing Utilization Review on Medicare Patients	Adopted as amended
Substitute 76A-33	William T. Sheehy	Physician Education as a Factor in the Control of Allegedly Frivolous Professional Liability Litigation	Referred to Board of Trustees
76A-34 (Late)	Edwin L. Falloon	Electroneurographic Procedures and Examinations	Substitute adopted
76A-35 (Late)	C. B. Lara	Drug Dispensing by Public Health Departments	Substitute adopted as editorially changed
76A-35AA (Late)	Robert J. Becker	Swine Immunization Campaign	Adopted as amended
76A-36 (Late)	David S. Fox	Required Liability Insurance by Hospitals	Adopted
76A-37 (Late)	E. K. DuVivier	Involvement of Alternate Delegates in House of Delegates	Not accepted for consideration
76A-38 (Late)	Edward A. Piszczek	Use of Social Security Number as a Universal Number Identifier	Adopted
76A-39 (Late)	Eugene P. Johnson	Reduction of CHAMPUS Fees	Adopted as amended

<i>Number</i>	<i>Introduced By:</i>	<i>Subject</i>	<i>Action</i>
76A-40 (Late)	George Lagorio	Public Aid Publication	Not accepted for consideration
76A-41 (Late)	George Lagorio	Illinois Physicians Union Advertising	Not accepted for consideration
76A-42 (Late)	George Lagorio	Illinois Department of Public Aid Negotiating	Not accepted for consideration
76A-43 (Late)	George Lagorio	The Temporary Medical Liability Underwriting Act	Not accepted for consideration
76A-44 (Late)	George Lagorio	The Factoring Company	Rejected
76A-45 (Late)	George Lagorio	Censure Resolution	Not accepted for consideration
76A-46 (Late)	George Lagorio	Chicago Medical Society Advertising	Not accepted for consideration
76A-47 (Late)	George Lagorio	Public Aid Audit	Adopted as amended
76A-48 (Late)	George Lagorio	H.B.28-32—Licensing Medical Factoring Companies	Not accepted for consideration
76A-49 (Late)	John J. Ring	Amendment to Chapter VII of the Bylaws	Adopted
76A-50 (Late)	John J. Ring	Transferring 4 County Medical Societies from the 10th to the 9th District	Adopted
76A-51 (Late)	Eugene Pitts	Reimbursement of Psychologists, Social Workers, etc.	Adopted
76A-52 (Late)	Joheph H. Skom	Abolishment of Council on Affiliate Societies	Rejected
76A-53 (Late)	Robert P. Johnson	Licensure for Ranked Faculty	Adopted
76A-54 (Late)	Joseph L. Bordenave	Utilization Review Regulations	Adopted as amended
76A-55 (Late)	Fred Z. White	Amendment to Chapter XI of the Bylaws	Adopted as editorially changed
76A-56 (Late)	Fred Z. White	Amendment to Chapter X of the Bylaws	Rejected
76A-57 (Late)	Robert T. Fox	Legal Definition of Death	Adopted
76A-58 (Late)	Eli Borkon	Relative Value Study	Adopted as amended
76A-59 (Late)	P. John Seward	Catastrophic Health Insurance	Rejected

Convention Scenes





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Illinois Cancer Council Launches Telephone Consultation Services

By WILLIAM M. LEES, M.D./MAYWOOD

The establishment of a new telephone system that will enable any physician in Illinois to obtain specific patient consultation from a panel of qualified cancer specialists will be an invaluable tool in the fight against cancer.

Beginning June 1, a new Cancer Information Service (CIS) designed especially to provide a direct line of communication between the practicing physician and those experts most knowledgeable in the detection, diagnosis, management and rehabilitation of cancer patients was inaugurated.

Sponsored by the Illinois Cancer Council (ICC), this project will provide easy access and rapid transmittal of cancer information by means of a toll-free telephone link directly to ICC and subsequently to a group of multidisciplinary scientists.

It has been estimated that if all the available information and technology were put to use, early detection and adequate treatment could save the lives of an additional 100,000 cancer victims each year.

The goal of the ICC is to make this knowledge quickly and easily available to health professionals throughout the state. To achieve this goal, ICC will serve as a catalyst between those who have the expertise and those who need the consultation. Cancer is still a very complex subject, and in spite of the fact that I work in a major medical center and see cancer patients every day, I frequently find a need for conference-type consultation with various specialists in oncology. Many cases present several options for treatment, which cannot be properly evaluated without discussion of the relative merits of each in relation to a specific patient situation.

We know that often more effective treatment can be accomplished with drugs alone or in combination with radiation. But how much of each drug should be used and in what combination? How should *in vitro* data be applied to human therapy? Answers to these questions for each patient may be arrived at in consultation. Discussion with immunologists, chemotherapists, radiologists, pathologists, and even other surgical specialists enables me to establish a plan of therapy with a greater degree of confidence.

Specialists like these and others are available to aid the physician who wishes assurance that the medical resources provided to his patient are the most modern available. Special emphasis will be placed on ascertaining the availability of cancer specialists, services and facilities in the state elsewhere than where medical centers with such capabilities are located.

Even where there is a medical center, information on hand will help identify an appropriate specialist who might provide the physician and his patient the convenience of competent help in a timely fashion as close to home as possible.

WILLIAM M. LEES, M.D., is Clinical Professor of Thoracic Surgery, Stritch School of Medicine, Loyola University, Maywood, and Chief of Staff, Hines VA Hospital, Hines. He is also a Trustee from the 3rd District of the Illinois State Medical Society, and a Trustee of the Illinois Cancer Council.

The system works very simply: by dialing the toll-free number (800-972-0586) the attending physician reaches an ICC staff member who has been especially trained to assist in the selection of an appropriate consultant. The ICC staffer then arranges for the consultant to respond to the request by phone or letter, depending on the nature of the request. All consultants will have ICC telephone credit cards and will be encouraged to discuss the case directly with the physician originating the request. From this point on, it is a purely physician-to-physician consultation, with ICC standing by to provide any additional assistance it can.

This program is conducted by ICC in liaison with the American Cancer Society, Illinois Division and the Illinois State Medical Society Council on Continuing Medical Education. In some cases it may result in panel members participating in local programs as speakers or tumor committee consultants.

Such coordination of state-wide resources is a result of the National Cancer Act which underscored efforts to place all usable information and skills in the hands of health practitioners by providing additional avenues for expanding and expediting the translation of research results into effective clinical practice. National Cancer Institute funds have helped support startup of this activity in Illinois.

The Comprehensive Cancer Centers, of which ICC is one of 18, have the responsibility to provide coordination and leadership within their regions to assure the availability of complete care for patients with cancer. Through a constant flow of scientific information, progress made anywhere else in the world should be available to benefit cancer patients anywhere.

In this regard, ICC is a cooperative effort of every medical school in the state and other organizations having cancer control, education or research as a major interest.

The success of the program will depend upon its use by the clinician and on the ability of panel members to provide satisfactory service. To this latter end, the panel is composed of those best equipped by demonstrated competency, adequacy of facility resources and availability to respond. They were selected for their knowledge of cancer detection, modes of treatment and familiarity with physical and social services in Illinois.

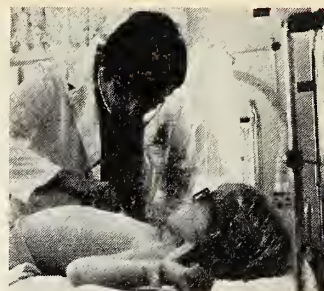
Broad in scope, their expertise transcends the diagnosis and treatment areas to include vitally important scientific fields of reconstructive surgery, rehabilitation and prosthetics, and social services such as financial resources information, special studies, and nursing home and other after-care facilities.

The CIS program is professionally oriented and will supplement continuing efforts of the American Cancer Society and its Illinois Division to provide general cancer information to the public.

With the cooperation of ACS and ICC in the new telephone system, we now have both a physician-to-physician communication and a scientists-to-layman channel that together should improve our chances of successfully combatting cancer.



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Linking Cancer Research and Clinical Practice

The Cancer Information Service for Illinois

- CIS provides additional ways of expediting the translation of research results into effective clinical practice!
- The toll-free number gives quick and easy telephone access to a panel of cancer specialists for specific patient consultation.
- Illinois Cancer Council Consultants will not charge for phone consultations arranged by the CIS.
- CIS offers an exchange of reliable advice and information about cancer research, detection, diagnosis, treatment and rehabilitation to professionals who want to be sure that the best available medical resources are provided their patients.
- CIS rapidly locates facilities, services, literature, and other resources used in the provision of comprehensive services to the cancer patient.
- CIS links clinician directly with cancer experts in professional physician-to-physician relationships.
- Available information covers a multidisciplinary scientific approach to medical management of the cancer patient as well as the social services important to the patient and his family.

Keep This Number: 800-972-0586

To Maintain Your Link with the Cancer Information Service

A SERVICE OF THE ILLINOIS CANCER COUNCIL
COMPREHENSIVE CANCER PROGRAM, in cooperation with
THE AMERICAN CANCER SOCIETY ILLINOIS DIVISION

This material was produced under HEW Contract #N01-CN-55245

Abstracts of Board Actions

(Continued from page 506)

Analysis of State Government

ISMS will contract with American Management Resources, Inc., a private consulting firm, to provide the Society with an analysis of Illinois governmental agencies important to physicians. The analysis will include tables of organization, flow charts, and an identification of the people making key decisions in the various agencies, as well as job descriptions with qualifications for these positions. The analysis, estimated to cost less than \$3,000 will be made for the intent of improving relations between ISMS and the various parts of state government with which it must deal.

Anti-Substitution

ISMS will develop a patient information flyer identifying the perils of repealing anti-substitution laws, a proposal currently being considered by the legislature.

Screening Programs

Although existing policy supports screening tests for newborn infants as a part of the practice of medicine, ISMS will oppose any proposed legislative requirements spelling out screening tests which must be performed.

Addicted Physicians

The Board endorsed in principle an "Addicted Physician Plan" to assist and rehabilitate physicians who have become addicted to alcohol or other drugs. The plan—developed by the ISMS Committee on Alcoholism and Drug Dependence—proposes to establish a group of resource physicians who would identify the disabled doctor and persuade him to seek voluntary treatment for his illness, while offering both the doctor and his or her family every possible support and assistance. The plan also provides for the sponsored re-entry of the rehabilitated doctor into full professional activity.

In a related action, the Board encouraged implementation of a proposed University of Illinois education project for identification and prevention of addictions.

The Board also authorized the Executive Committee to respond to proposed amendments to the Alcoholism Treatment Act if these appear to be detrimental in the judgment of the Committee on Alcoholism and Drug Dependence.

Adjudication of Local Peer Review Cases

Concerned about delays in adjudicating peer review cases, the Board will request county medical societies to settle such cases within three months following full documentation. Those cases that cannot be processed and adjudicated within three months should be referred to the District Peer Review Committee.

Aetna Claims Procedure

Following complaints that Aetna Life and Casualty Co. is again notifying patients that its insurance covers "only that portion of a physician's charge not exceeding the prevailing level of fees charged for the procedure in question," ISMS will request another meeting with Aetna officials to review this practice.

Factoring Companies

Upon recommendation of the Ad Hoc Committee on Factoring Companies, the Board of Trustees agreed to:

- A. Bring to the attention of the Democratic and Republican candidates for Governor, Resolution 75N-26 which calls for restructuring the Illinois Department of Public Aid (IDPA) and reorganizing its procedures so that prompt payments to health care providers will eliminate the need for medical factoring companies.
- B. Request each gubernatorial candidate to provide recommendations for restructuring IDPA and removal of upper echelon management personnel.
- C. Request gubernatorial candidates to give their reactions and recommendations regarding participation by health care providers in setting Medicaid fees, rates, efficiency of payments and expediting the dispersal of such payments.
- D. Strongly support investigations into "factoring" matters and other abuses in payment discrepancies.
- E. Request a meeting with the Illinois Attorney General and other state and federal investigative agencies to determine the status of factoring company investigations, and the status of the factors' request for an injunction against the Illinois Department of Public Aid.
- F. Request the Illinois Attorney General to investigate the legitimacy of entrepreneur clinics where lay-people hire physicians to treat public aid patients.
- G. Maintain a committee of the Board of Trustees to: keep abreast of the factoring company problem; be alert to pro-factoring issues arising; and make reports and recommendations as deemed necessary.
- H. Utilize ACTION REPORT or a similar ISMS publication to solicit information from members regarding their use of factoring companies if the Attorney General indicates that such a poll would be useful to his investigations.

Planning and Priorities

Upon recommendation of the Planning and Priorities Committee, the Board agreed to:

- A. Adopt the position that alternate trustees are neither necessary nor feasible;
- B. Request the AMA Delegation to develop a mechanism for evaluating the effectiveness of delegates;
- C. Invite specialty societies to nominate physicians for appointment to ISMS council and committees;
- D. Provide administrative services, where feasible, to specialty societies on a cost basis arrangement;
- E. Utilize all-member mailings of ACTION REPORT to poll the membership on socio-economic issues;
- F. Publish periodic feature stories in IMJ describing the work of ISMS councils and committees with an accompanying tearout application for physicians to complete and return if they are interested in serving on that particular council or committee.

Robert T. Fox Elected Board Chairman

Dr. Robert T. Fox, Glenview, was elected chairman of the Board of Trustees, replacing Dr. Joseph Bordenave, Geneva, who has served in this capacity since 1974. ◀

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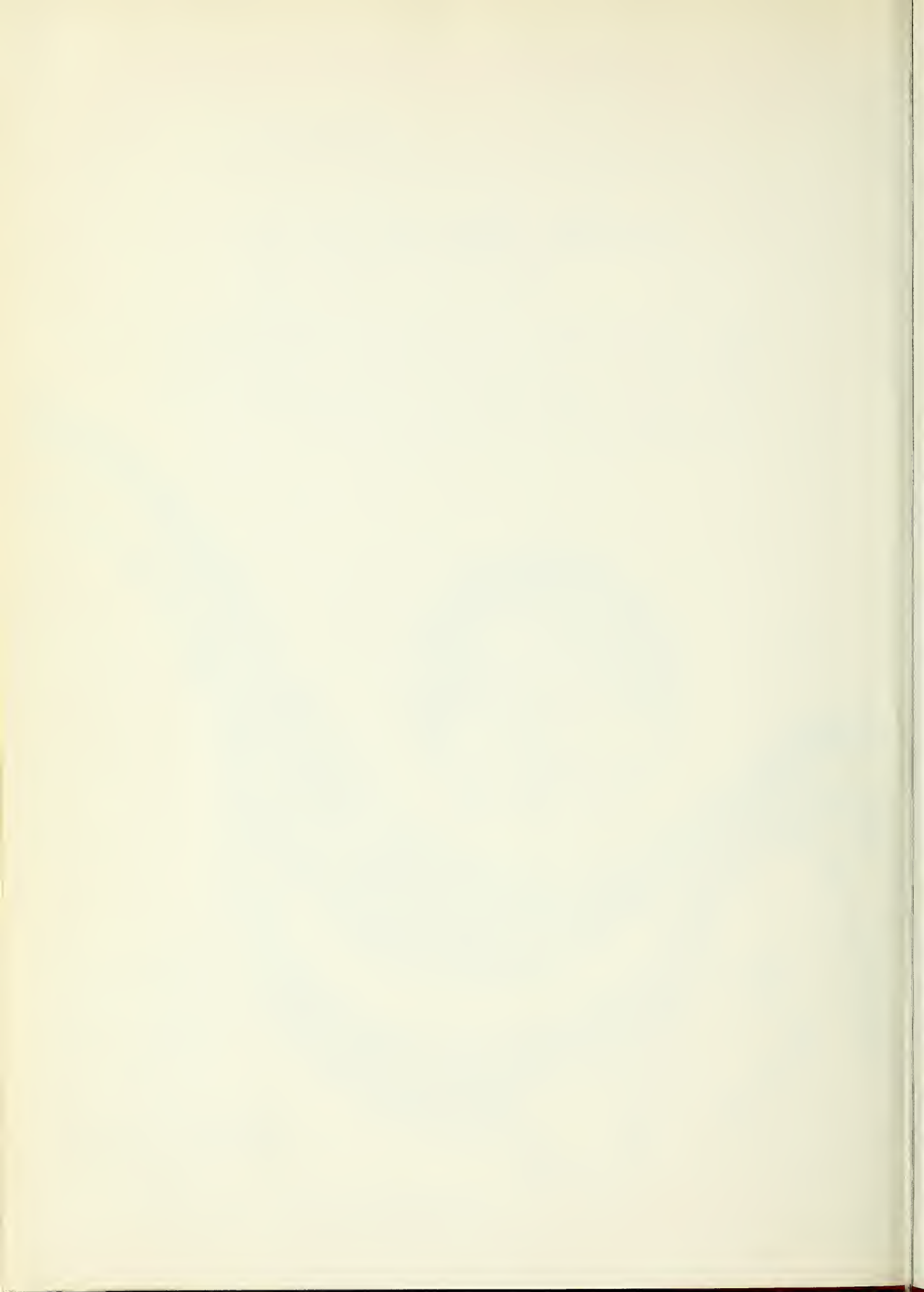


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